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13

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JANUARY 1969

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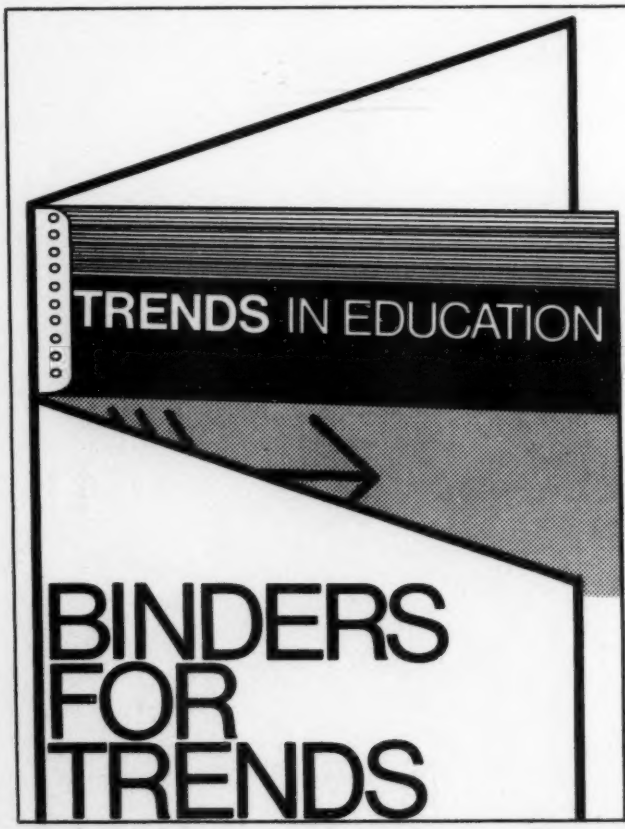

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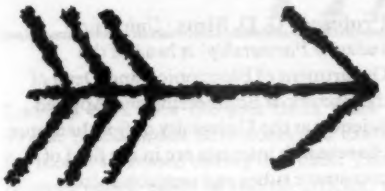

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The Editorial Advisory Board of Trends in Education *consists of senior officers of the Department and senior members of the Inspectorate. The Chief Information Officer is general editor, supported by an executive editor (Martyn Clémans) and an associate editor (David Hopkinson, HMI). Correspondence should be addressed to the executive editor.*

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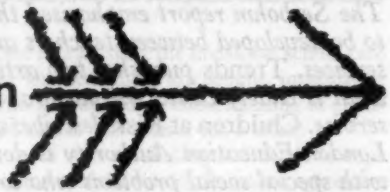
Trends within



Looking back over the past three years we found that the pages of *Trends in Education* have contained exactly 100 major articles. Value for money increased during that time. This was partly as a consequence of more pages, partly of shorter articles: in 1966 we ran 29 articles, in 1968, 38. The net result has been an improved coverage of the educational scene.

Over the three years a quarter of the articles were on curriculum topics and school organisation. This side of the journal has gained rapidly in importance: four articles in 1966, six in 1967, 14 in 1968. This results from a deliberate editorial policy to report more fully on classroom developments.

Teacher training has also been well covered: 11 articles in all, almost all of them in the last year.

Taking curriculum and teacher-training subjects together—areas which are of particular concern to teachers—21 out of the 38 articles published in 1968 lay in this field.

Further and higher education were not left out: two in 1966, four in 1967, four in 1968.

Educational research and educational technology have provided nine articles, but at a declining rate (four, three, two). Another nine articles were about social aspects of education (including parent interest), four dealt with careers and vocational guidance and there were two on the youth service.

There were 11 articles on developments overseas, eight on the economics and administration of education, and seven on statistical trends.

Who wrote our 100 articles?

As promised in the first issue, H.M. Inspectorate has made a steady contribution, providing a third of all the articles and almost all the book reviews. Another dozen or so have come from DES staff (apart from editorial contributors). Also as promised in the first issue, our pages have been open to outside contributors—outside DES and HMI that is. We welcome the increasing share of *Trends*' space that teachers and local education authority officers are taking: in the last six issues they, together with college and university staff, provided 23 articles out of 55.

The Editors

The Seebohm report emphasised the need for close links to be developed between teachers and the social services. Trends *publishes two articles on aspects of what is widely called the pastoral role of the education service.* Children at Risk *describes what the Inner London Education Authority is doing to help children with special social problems who are being educated in ordinary schools.* Experiment in Welfare *is an account of co-operation between social work agencies at a school in Southampton.*

Children at Risk

G. V. PAPE

In the primary school the headteacher may be the only person free for counselling a child or a parent. In socially deprived areas the conscientious exercise of this responsibility may take up a good deal of time. Calming the agitated child, remonstrating with the obstreperous child, listening to a mother's tale of woe, taking to task a neglectful parent, putting wise an uncomprehending parent—are demands which are not to be neglected. In some of the schools the children from really secure homes are the minority.

The time-tables of secondary teachers provide for non-teaching time and sufficient may be granted to designated members of staff, e.g. housemasters, to enable them to attend to individual welfare needs, but some schools have, even so, found supplementary counselling and remedial assistance of value.

The educational psychology service, the medical advisory service and the school care organisation are available to reinforce the personal advisory function of the school in cases of persistent and deep-seated malaise, and recourse may ultimately need to be made in these instances to the special educational provision, but the incidental manifestation of emotional upset or work refusal are matters for the school to face. It is the purpose of this article to describe certain special measures, pioneered in the Lambeth area of the Inner London Education Authority, designed to reinforce the efforts in this regard of the teachers.

Three-Part Scheme

To meet the social problem at an infants' school with many deprived and insecure children, it was decided to experiment in the fuller use of ancillary assistance, voluntary and paid. This was in 1964, and since then the service has been expanded to some twenty other schools similarly handicapped.

The provision is in three parts:

(1) weekly visits to the school of specially recruited voluntary care workers;

(2) visits of senior secondary pupils;

(3) the employment half-time with the reception class of an extra infant helper.

The voluntary care workers are recruited by the divisional school care organiser. People of maturity and sensitivity are sought, imaginative and non-judgemental, and with a sympathetic understanding of children. They attend regularly on one or two afternoons a week.
The children they meet are those who are finding it difficult to cope with the normal social environment of the school. Some are aggressive and emotionally unstable, some withdrawn and non-participating, some extremely backward and scarcely able to talk at all. Their need is for personal warmth and affection, and for continutiy and consistency, with their interests stimulated and encouraged and their vocabulary and concept formation extended.

A trust has first to be built up between the children and the worker. A very slow process of acceptance has to be gone through by both sides, the individuals in each group probing the limits to which the worker allows them to go. When the children find they are not rejected for anti-social behaviour they may become very demanding in their need of her attention.

A typical situation was that where the group was given a room of their own which they wanted to turn into a house of their own. If the group split up into families for a seaside game, then the worker tried to put the aggressive child with the withdrawn child, with the aggressive one playing the role of the person who would be expected to be helpful and considerate, such as a train driver, mother, father, tour guide. No child *had* to join in, but after a while most of them did, getting fed up with sitting on their own in a corner or playing on their own. During painting or sewing sessions, the worker encouraged the children to talk about themselves, trying to get each child to listen quietly while one did the talking. They were all given a washing bag with tooth brush, soap and comb. They did each other's hair—one boy went so far as to wash another's neck as he didn't think it clean enough! The worker tried to introduce as many new words as possible into all conversation. The aim in any activity was to help the children develop better relationships with each other and to realise that not all adults are hostile or inconsistent. That the sewing, painting, claymodelling or play may never be completed was relatively unimportant. The relationships which developed and the degree of helpfulness and responsibility which went on within the activity were what mattered. When the worker visited homes on behalf of the school care committee, she found that through the children the parents knew her name and many of the things their children did with her. She was able to establish friendly contact quite rapidly because of this.

The headmistress of this pioneer school reported the results as quite dramatic. The need for individual notice of the over-aggressive children had been met: 'There have been no outbursts of uncontrollable temper and violence for some months. They are now able to be assimilated quite happily in their classes and no longer appear to be candidates for maladjusted schools.' The withdrawn and non-participating children had become far less timid and had gained considerably in confidence: 'Michael has become a leader in dramatic play, and Jacqueline, Pauline and Sharen are quite active in classroom pursuits.' The backward children had gained in dignity and self-respect: 'They are now talking and anxious to communicate, whereas previously they grunted,

instead of using words, and watched other children playing without attempting to join in. Now they paint, build with bricks and play many games. Pamela has stopped ceaselessly rocking and is a chattering little girl. Patrick and Agnes are far cleaner and are learning to read a few words.'

Sixth form girls who are intending teachers spend each Friday afternoon with their special children. They play games together, sew, make books, read stories. The experience is enjoyable and profitable to both parties. 'I have gained from the course', wrote one, 'as it has made me reorganise my own thoughts so that I can speak clearly and simply to children and avoid confusing them. I am now able to appreciate some of their difficulties'. Another—'I tended to look on children as a mass, but by meeting them in these small groups I have realised that, even though they are only five, they are all individuals'.

Fourth formers have also visited, but it seems that the children sense their immaturity and do not co-operate well with them. These younger girls can best, it has been found, assist the teacher in the classroom under constant supervision but that, on their own, they are inclined to use the children as puppets or dolls to fulfil their own needs—or be tempted to take over a task and complete it without the child's participation. The older girls see the need for allowing children to tackle things for themselves and only help when the child is unable to take the next step alone.

The half-time helper in the reception class makes life there less strained for everyone. The teacher is relieved of jobs like mixing paint and dough, preparing clay, sharpening pencils, checking on apparatus, making books, and is able to spend far more time with the children. In this way, there are two adults in the room to talk to the children and enlarge their vocabularies, give comfort when a child is distressed, exclaim over discoveries, take groups to the lavatory or playground or for walks. A more interesting and stimulating environment is provided as the teacher is less exhausted by the physical and social demands of her children now that she has assistance.

The value of the mature auxiliary in school has in these instances been recognised by the teachers and has been fully proved. Heavy demands remain, of course, upon the staff for, added to their own responsibilities for children, are the liaison and consultation they must maintain with the special workers. But the staff have felt that any extra effort involved has been more than balanced by the satisfactory feeling that some of the children's most urgent needs were being met.

Remedial Classes

In September, 1966, accommodation consisting of a bungalow building with three small rooms, a small hall and a small playspace, miraculously became available in the heart of the area in Brixton which houses the country's largest concentration of West Indians. One room was furnished for writing work, another fitted with carpet, curtains and easy chairs for reading, and the third with indoor agility apparatus, while the hall is used for crafts and movement. There is a small staffroom and a tiny kitchenette which is used by the helper.

The staff consists of two experienced teachers who had taken a course for teaching English to children from overseas. The services of a

medical adviser have proved invaluable in bringing to light individual handicaps which would have been less easy to trace in the normal school situation, and, through her good offices, parents have been put into touch with appropriate welfare and social agencies.

The children who attend the classes are classified as 'culturally and linguistically handicapped'. They are selected by the headteachers in consultation with the educational psychologist with this broad description of their needs in mind. Their deprivation may arise from lack of conversation at home, broken attendance at school, or from unfamiliarity with the English idiom. Their problem is the incipient one of uncommunicativeness leading to restlessness and discontent. The age range is 8-10 years. The children are drawn from six or seven neighbouring primary schools and attend either mornings or afternoons for four days a week, twenty-five at a time. Fridays are used for multifarious purposes which include educational excursions, parents' meetings, medical examinations, consultations with class teachers, teachers' courses and entertaining visitors.

The two teachers work jointly with the whole group, with sometimes a small homogenous group separated off for reading practice. Their aim is to extend the experience of these deprived children in order to stimulate their creativity and enrich their language. They believe that the children's curiosity must be released if they are to use language meaningfully. Visits to the Zoo, the Planetarium, the Royal Mews, museums, libraries, exhibitions, parks, ponds, shops and markets have fed this need. The writer once arrived when the children had just returned by train from a fishing expedition. (For three of them it was their first train journey.) Flushed with excitement, they exhibited their jars of 'tiddlers' and pond weed. Their tongues were loosened. They were bursting to communicate. Much talk, writing, reading, painting would follow in the classes.

A particular device, invented by a colleague and dubbed 'Talking Books', has been employed with singular effect to improve conversation and encourage reading. The reading of an exciting and lavishly illustrated book leads to the children's improvisation of sound effects and dialogue in keeping with the narrative. The tape of this permits a representation of the story in an audio-visual context. Thus motivated the children may tackle the text itself and illustrate it in art, craft and writing. For such children to be persuaded to work on a varied text, which does not suffer from the repetitiveness and stilted language of the graded reader, is no mean achievement. A video-tape recording of the whole procedure has proved immensely instructive to teachers and lecturers.

It is abundantly evident that the children enjoy their visits to the Classes. The heads of the contributory schools universally testify to its beneficial effect upon the children's personal and educational development. After a term or two they are generally ready to take their permanent places in the normal school community.

Domiciliary Tuition

The impetus was provided by an article in *The Guardian* by Peggy Jay under the heading—'A Cure for Two Frustrations'. The remit was a resolution of the schools' committee—'that authority be given to

conduct a pilot scheme for the individual tuition of backward pupils of secondary schools by qualified teachers in their own homes'. The Lambeth division was chosen as the site for the experiment. Head-teachers consulted readily agreed to co-operate.

An advertisement for tutors was inserted in the national and local press. Applicants were young married women who were eager to resume work but unwilling or unable to leave their children in other hands while they returned to school. They were interviewed in their own homes. All selected had taught pupils of low ability. They were engaged for from three to seven hours per week arranged in two to four hour sessions. The rate of pay was fixed at 24s. an hour.

Schools are asked to present pupils who are educationally and emotionally retarded and who might respond to individual attention without taking advantage of the circumstances under which it is given. To these, standardised tests are set as prescribed by the educational psychologist, and profiles of the pupils' characteristics, in a form as prescribed by the educational psychologist, are compiled. The educational psychologist then interviews the pupils and selects those to be given tuition. Parental permission is sought, and has been obtained without difficulty.

Tutorials last from one to two hours; pupils attend for two or three sessions a week. Generally they go singly, but sometimes, where it is considered it would be helpful, they attend in pairs. Their ages have ranged from 11 to 15

The tutors visit the schools to discuss their pupils with the teachers and to attend school functions. They also meet as a group with and without the educational psychologist once or twice a term, the host school providing a crèche. Monthly reports on the pupils are made by the tutors to the schools and to the educational psychologist. Usually there is one member of a school staff, e.g., the head of the remedial department, charged to maintain liaison with the school's tutors. Efforts by by tutors to make contact with the children's parents have unfortunately had little success, but parents have appeared grateful, as well they might, for the help received.

Books and apparatus are borrowed from the schools' stocks, an initial grant to the schools being made for this purpose. The tutors have been enterprising in the teaching methods adopted. Basic bookwork has been supplemented by the use of home-made matching apparatus. Reading, writing and number work have been linked to the pupils' dominant interests, and visits have been arranged. Pupils have worked in kitchen and garden, and in some cases the demands of baby or toddler have challenged their tenderness and resource. Emotional and social adjustment are considered aims as desirable as that of educational achievement.

The uniqueness of the scheme is in the reversal of the usual pattern in which a teacher assumes her professional role within the institution which symbolises it. The pupil, similarly, is required to make a wholly different adaptation; while remaining a pupil he or she encounters an adult whose 'home' or 'mother' role he or she is not accustomed to meeting. Also the meeting is on premises which are not bounded by familiar signs of 'do' and 'don't'. The very humaneness and informality of the situation may mislead one into supposing, without question, that

they facilitate learning. It cannot be assumed that this is so, though there are obvious positive features in the situation which make it likely to occur. That the pupils enjoy their lessons is clear. They express their pleasure to the Head and tend to regard selection as a status symbol. They are, moreover, keen to make progress and expect plenty of work. To be happy as they learn is in itself a new experience for most of them.

The schools have frequently reported an improvement in attainment and a gain in self-confidence as a result of the tuition. Of one—'a very quiet boy, shy and nervous and very easily embarrassed'—it was possible to report subsequently: 'School work has improved, notably his reading. His relationships with the staff are better. He is now an active participant in class lessons, ready to volunteer remarks and better able to sustain a conversation.' A tutor's assessment is in similar vein: 'There has been a marked change in Linda's manner. On her first visit she was anxious, withdrawn and silent. Now she usually arrives smiling and has lots to say. At times, on a recent visit to Whipsnade Zoo, she gave the impression of a normal, happy child, running off on her own to look at things and returning with animated accounts of what she had seen.'

All the tutors have been extremely interested in their work. They have been uniformly sensitive to their pupils' needs and patient with their faults. Whilst fully aware of their own limitations in this uncharted field, they have been resourceful and inventive in devising remedial situations. Modest in their claims, they have nevertheless experienced reward in their efforts and been eager to further them. Certainly, through this means, an effective addition has been made to the corproate teaching strength which would not otherwise have been possible.

As a result of the success of the experiment in Lambeth, the scheme has been extended to other areas of London.

Experiments in Welfare

COLIN LUCKHURST

In common with every other big city, Southampton has a central area of older housing affording the living conditions and social amenities which contribute to the potential designation of an educational priority area (EPA). The area in Southampton is the district of Victorian period housing immediately north of the docks. It also contains a number of early municipal housing projects to which, because they are less favoured, families moved from other estates for non-payment of rent tend to gravitate. This description calls to mind a familiar enough picture and two of the schools in the district, St. Mary's Church of England Primary School and the Deanery Secondary School have already received allocations for building improvement under the EPA programme. The area is, of course, changing. Major slum-clearance projects are producing a bright and new environment, a mixture of low rise maisonettes and tower block flats. Clearance and re-building are continuing but it will require a great deal of physical improvement and development of amenity areas before the 'down-town' image of the area is lost. It is not, therefore, in any way surprising that the schools serving the district have an above average level of welfare problems. In recent years the Southampton immigrant community has moved into the northern sector of the district, but although this has presented some challenges to the schools in educational terms, it has not until recently added very significantly to welfare problems and this is worth emphasising.

Problems

The serious extent of welfare problems led to the establishment four years ago of the Deanery School Welfare Committee. It had two objectives—firstly, to bring together the entire range of social welfare workers professionally engaged with the families of children in school and, secondly, to reduce the number of children from the school coming before the courts.

The experiment was started in 1964. Deanery School had a new head and the principal education welfare officer rapidly established a liaison with him. Both were concerned at that time with a growing incidence of juvenile crime in the area. A disturbing number of children at the school were on probation and the overall social framework of the area did not offer encouragement that the situation was likely to improve of its own accord. It was evident to the head and the principal education welfare officer that all the agencies of social support and welfare were at work in the area and were dealing with families the children of which presented problems in school.

Accordingly, in a field in which co-operation has always been made difficult by rival professionalisms, the two leaders of this experiment started to bring together teachers and social workers so that each could gain from the other's experience. It was believed, probably legitimately, that the two professions often fail to see a specific difficulty in the same

light and that both have useful information to contribute which can lead to action to the advantage of both.

The early meetings of the committee brought together five interests. The class teachers met the education welfare officer for the district, the children's officer, the health visitor, and the probation officer. It was, it will be noted, the class teacher with the intimate knowledge of individual children, rather than the head alone, who participated from the start in the experiment. In welfare terms, the class teacher is the field worker and this has been an essential recognition. From time to time the Deanery Welfare Committee has also included a psychiatric social worker, an educational psychologist, a youth leader and, occasionally, a police officer. The early meetings brought out the lack of communication and the lack of knowledge by the class teachers of the social service agencies and their work. Schools were seen not to be using the education welfare officers and the branches of welfare work to the best advantage. The second report of the committee, from the school, said 'we were amazed at how little we knew of the work done by other members of the social services and what they were—we learned where to go for help'.

Aims

In its first year the committee met more frequently than is the case now. Termly meetings now take place, but in the initial stages they were more frequent and usually monthly. Membership has, however, increased. The aims of the meetings were clear. In the first instance the objective was to improve communication between all the people who, in their differing professional capacities, might be dealing with a single family and its children. The priority need was for these people to get to know each other and for the teachers to know them. The second objective, given the overall situation of the school, was to try and find some way of helping those children who were suffering from severe social handicaps, and particularly to do all that could be done to prevent the children appearing in court.

The first objective has been satisfactorily accomplished. Four years after the establishment of the committee, the principal education welfare officer has been able to report that the participants in their scheme now feel themselves members of the same family and are able to discuss difficult cases with much less emphasis on confidentiality than was ever possible previously. Teachers, particularly, given the expertise and the practical day-to-day experience of the other members of the panel, have learnt to what an extent children who are difficult in the classroom are the products of home backgrounds which may require considerable support from the agencies represented on the committee. Conversely, teachers who observe a child's behaviour pattern at close range over several years, can contribute to the knowledge which, for example, the educational psychologist will be trying to gain in interviews.

The working of the committee has now settled down on a once per term basis. The agenda is quite simple. New cases are introduced by the head, or by another member, and potential action is considered. Secondly, cases which have been previously considered are reviewed in terms of progress and the support which has been made available to the

child. The action which may come from the work of the committee varies greatly. For some cases, only a watching brief to a particular agency may emerge. To others, referral to the child guidance clinic may be necessary. The family case-work service may be called for or it may prove necessary to suggest in some cases that residential special schooling is necessary.

An early joint report of the head of Deanery School and the principal education welfare officer indicates the progress in terms of the other objective of the committee:

> 'We did not feel, however, that we made much positive progress towards reaching our second aim, namely to prevent children from coming before the courts. We did take a number of individual cases and referred these to members of the committee for action. In many cases the matter of interview and diagnosis did tend to take a long time. This was due to the fact that the case load of those involved in social work, e.g. members of the child guidance teams and family case work service, was already excessive, and that the process of making appointments and interviewing was necessarily slow. Very often, by the time the diagnosis had been made, the boy or girl had committed an offence, or left school. Of course, it was always necessary to obtain the co-operation of the parents of the children concerned. In most cases this was forthcoming, but not in every case. The normal routine was to refer the child to the child guidance team, provided the parents would agree. The child guidance officers would then see the child and his parents and tell us whether in their view the child was maladjusted or simply truculent. If it was decided that the child was merely truculent, there was nothing that the child guidance could do to help, and the staff of the school was left to cope with the problem.
>
> 'If, on the other hand, it was discovered that the child was disturbed, a recommendation would normally be made for visits to the clinic for treatment, and if this proved ineffectual, the child would be considered for special residential treatment. If it were felt that there was severe social handicap as well as emotional disturbance, other members of the committee would be asked to visit the family. This would be done anyway if we felt that a child was suffering from severe social handicap whether it were emotionally disturbed or not. Visits to the home were made by the child care officers and/or a family case worker.
>
> 'It was not always possible to use the services of the probation office before a child committed an offence. This, we felt, was a very severe handicap. As things are at present the probation officer supervises the welfare of a child only after the child has been placed on a supervision or probation order. However, it is true to say that the probation officer can do a great deal to help the child before he comes before the courts if only the parents are prepared to give their consent, though the first people to be called in are the children's department. Responsibilities here could be more clearly defined.
>
> 'It became increasingly clear in the course of our meetings that without the consent of parents there was very little we could do to prevent children from getting into trouble. In some cases, the co-operation of hostile parents is eventually gained but only after months of endeavour on the part of social workers. In other cases parents remain hostile, but unless parents co-operate whether it be straight away or after months of persuasion by a social worker, there is nothing that can effectively be done.

'The growing proportion of immigrants in the school, now 27 per cent but likely on current projection of intake from the contributory primary schools to reach 40 per cent within the next seven years, is presenting additional welfare problems which are not, however, in the normal context of educational welfare. The Indian and Pakistani family units are well knit. They are unlikely to be problem families in the same ways that indigenous families may be. But the cultural shock of assimilation throws up its problem of which the school is now well aware. In addition, therefore, to the work of the committee, a part-time immigrant teacher, a young graduate in sociology of the University of Bombay, has been appointed to the school staff primarily to look after the welfare of immigrant children. She joins a staff which already includes three immigrant teachers who have played a major role in the teaching of English as a foreign language.'

Achievements

After four years of work, the achievement of the committee can be appreciated. The head is still reporting on the intractability of parents but the much improved relationship of all the field workers, including the teacher, has meant that many would-be problems do not materialise.

Probation cases at Deanery School have fallen markedly. For the first time, the 1967 summer holiday was marked for the head by the fact that it was the first long holiday during which he was not troubled for a report on a child by the children's department. At the same time, the problems of the school, reflecting as they do the conditions of the area, continue. The experiment confirms the need for speed in diagnosis and treatment. It is vital to identify problem cases and to deal with them whilst they are young.

The Deanery Welfare Committee has proved its worth in Southampton. Its experience may well herald a new approach to education welfare in the city, of increasing relevance in a time of changing attitudes to all social welfare. The *Report on Local Authority and Allied Personal Social Services* (Seebohm report) envisaged a reorganised social service department able to provide the coherent range of services represented in the Deanery School experiment. It emphasises the need for close links between teachers and the social services and the importance of full knowledge by teachers of the work of these services. The Deanery Welfare Committee pre-dates the Seebohm report but its objectives have been remarkably similar and its experience endorses the value of the recommendations made.

Epping Forest provides an opportunity – through field studies – for a new dimension to be added to the experience of city children.

Down in the Forest

MARTYN CLEMANS

For many people nature study has connotations of our Victorian grandfathers in knickerbockers, in full flight after *lepidoptera*. The *lepidoptera* have largely disappeared now, thanks to the liberal use of pesticides. Old style nature study is going too, to be replaced by the more integrated approach of rural studies. But in some schools things have not yet changed, so that in many children an aversion to the subject is developed early, and ecological work, even to many people who go on to read one of the biological sciences at a university, is not something they are much interested in.

The study of the countryside can become exciting to town children if it is not made to look too much like 'something that is good for you' by a teacher who is well-meaning, but eager and patronising, in his (or her) approach. For, while those of us with greater opportunities have been able to develop slowly over the years an interest in, and a respect for, the countryside (so that we feel passionate about its preservation and cannot understand why others do not) to many city children—and more importantly, to their parents—it is something alien, even to be feared. In the British countryside a variety of forces are in dynamic equilibrium. Many people find this difficult to grasp, but it is necessary to do so if a real appreciation of our heritage is to be achieved.

Ken Hoy, the teacher-warden of the Suntrap Field Centre at High Beech, in Epping Forest, is keenly aware of these aspects of field studies. To his centre come third and fourth year primary school children from the London Borough of Waltham Forest, and in the summer term some infant school groups.

When asked if it would not be better to use the centre for secondary schools, Mr. Hoy was adamant: 'The younger you can introduce children to field studies the better. Get them before the barriers are up; get them before they have developed an attitude, before they start thinking trees are something you cut down and insects things to squash.'

I was reminded of this later when we went out into the forest. The nine-year olds with us were interested in everything, eager to learn and attentive. They asked questions incessantly, and obviously did their best to remember the answers. In their Wellington boots (provided by the centre if they hadn't their own) anoraks and trousers, they were dressed to meet all eventualities. Then we came on a group of girls from a secondary school. Not only were their clothes unsuitable to the situation—many were in high-heeled shoes and had been over their ankles in mud—but they were dragging brief cases and bags so they could not have examined specimens if they had wanted to. But it was

very evident that they did not want to. They could not have cared less about their surroundings and were obviously in a great hurry to get back to 'civilisation'. Of course not all secondary school groups are as uninterested as this one.

The Walthamstow (now Waltham Forest) LEA's interest in providing an opportunity for field work by its schools goes back to 1955 when Fred Speakman, the well-known Essex naturalist, was asked to start a field centre at the Jubilee Retreat* at Chingford. Mr. Hoy, who runs the Suntrap Centre, was a commercial artist before he became a teacher. Rather like a convert to a religion he brings a special enthusiasm to the work.

The Waltham Forest LEA acquired Suntrap in 1967 for a quite nominal sum from the previous owners, who were keen that the house should be used for a worthwhile purpose rather than fall into the hands of developers. They opened it as a field centre in the September of that year.

The house stands on the site of the Dr. Allen's private asylum where John Clare the poet was confined, and produced some of his best verse.

The city has pushed closer since he wrote in 1838:

> While giant London, known to all the world,
> Was nothing but a guess among the trees,
> Though only half a day from where we stood.

The forest too has changed in many ways, for this was before the enclosures which later threatened to destroy it completely.

At first, as teachers from schools using the centre did not always accompany their children, there was little follow up. Class teachers now come with their children. A one day visit is made every three weeks. A maximum of fourteen visits is thus possible during the school year, a period long enough for the children to see something of the changing seasons in the forest.

Because some schools in the LEA area are in a semi-rural environment, they do not all use the centre. Mostly children travel 9-10 miles by special bus, arriving at 9.30 a.m. and getting back to their school at about 3.30 p.m.

The centre has seven acres of ground: the area around the house, and a field beyond. At the moment most of this has run wild, but it is intended to landscape the ground in front of the house—or rather to return it to its previous developed state—and to re-establish a large pond that the neglect of years has turned into a mini-swamp. At the back of the house is an area of bushes, nettles (very good for butterfly culture) and scrub which is to be left wild but will have paths cut, opening out into small clearings where groups can sit for talks and discussions. By doing this the ecological environment of the area will be disturbed very little and it should be possible to observe field mice, voles and insect life. The field will be used for camping connected with field studies. Groups of children will spend one or two nights at the centre. They

*'Brakes', carrying roistering Londoners, journeyed out to these retreats in Edwardian times. They provided refreshment and other 'necessities', and are themselves part of forest history.

will go for midnight walks, listen to the 'dawn chorus', and study the night-time animal and insect life of the forest.

In September 1968 the centre's daily capacity was doubled to 80 children by the opening of a second classroom. There are now five teachers full-time, including Mr. Hoy and his assistant Miss Hickling, who has been with him since the house was opened.

The animals at the centre have mostly come from the RSPCA. There is a ferret—found of all places on Dagenham Station; a baby fox that had rickets when it was brought in and is still so terrified it must have been ill-treated; a grey squirrel, which runs freely along branches slung across the classroom. Mr. Hoy hopes also to acquire some of the red variety, perhaps from Suffolk, to try to re-establish them in the immediate environs of the centre. There are also three tawny owls, which spend most of their time sitting on the top of a book-case asleep, a pheasant (also supplied by the RSPCA), two magpies and a kestrel which when it arrived had a broken wing. The owls are of course carnivorous. This is no great problem except that their meat must have fur or feathers with it, which in this pre-packaging age is not so easy. At present the teachers have to feed the animals themselves, including weekends and holidays, so that this puts a limit on the number and variety that can be kept.

Mr. Hoy is quick to point out that they have not gone into the zoo business. In fact they do everything possible to counter this image, by keeping as many animals as possible free about the place. How far they are successful is demonstrated by this example of writing by a nine year old boy:

Life in a Cage

> It must be very lonely in a cage for an animal if its by its self. There's not much room and its not very nice for an animal to see us roaming where we want to. When it looks out it can see us and it looks like gaints (sic) to him and the houses like great towers. I wonder what its like for Rofus the fourth year guinea-pig. With the children talking and making a lot of noise and when the children go home at night when its dark it must be rotten.

Because many of the animals brought to Suntrap are in a frightened or maimed state they provide good opportunities for talks about the sensible care of pets and on the evils of ill-treatment. They also bring the children face to face with an understanding of relationships in nature, for you cannot—indeed should not—gloss over the fact that an animal lives by preying upon another. If a child asks about grass snakes, and he is told they are rare now because they mainly live on frogs, and frogs in their turn are rare because small boys collect frog spawn, taking too much of it from pools, you are achieving a number of things at once. You help him to think what he is actually doing when he goes collecting tadpoles; you are supplying him with certain basic facts about one particular animal—in this case a snake; and you are bringing him face to face with the death of an animal. In the past many well-intentioned teachers of nature study tended to ignore this side of things, especially with primary school children.

Is it right to show children things that are dead? Not everyone would think so. Yet the most effective piece of road safety propaganda I have

yet seen is from Suntrap. A squirrel had been found that had been run over. The remains, suitably cleaned up, were available for inspection. Here was graphic evidence of the diabolical power of the car that every child could understand. One dead squirrel was in this case worth a thousand tellings to, 'Stop. Look right etc.'

Broadening Visual Experience

'Our aim' said Mr. Hoy 'is to extend the children's experience, not merely "do nature". The centre is intended to fulfil a total educational purpose. This will include work in mathematics, creative English and art, as well as history, geography and biology of the locality.' Mr. Hoy quoted examples of the stultified nature of the world of many of the children. From the hill behind the centre one can look out over the Lea Valley. From there, on a clear day, you can see the dome of St. Paul's Cathedral 18 miles away. Mr. Hoy quoted the child who said to him 'Isn't it big sir', and on being asked 'What is?' replied 'Why, the world sir.'

The broadening of the visual experiences of the children at the centre—the colours and patterns of foliage, the sky under sun and in rain—helps them to extend the range of their creative writing.

Mark Stephens. Aged 9½

> 'We could see the leaves on the ground shine when the sun shone through. It was a watery sun which looked as if it were melting. The forest was silent and I saw a squirrel dart down a tree from its drey and along the ground and up another tree. At the bottom of the hill there was a clear stream with a small drop in it where the water trickled gaily over. There was a large clump of ferns which swayed gently in the wind. The sky was filled with woolly cloud. The trees made ghostly shapes on the ground. There were long thin shapes and short stubby ones. The birds were singing sweetly but could not be seen.'

Maureen Hornsey. Aged 9½

> 'As we looked down from the valley we saw the gay colours of the trees, felt the cold wind brushing past us. All was quiet then a squirrel darted across our path. The leaves danced across the floor and more leaves fell from the trees. No flowers but you could smell things you can't smell in towns or cities. I feel the dampness of the floor see the leaves fly up in to the air then all was quiet. The sun shone and made a mist on the ground and then we walked on. Then we stood in a town which was there years and years ago where cattle lived and people too. It did not seem true.'

This area has a great deal of local interest; there is a Mesolithic site close by, and there are some pre- and post-Roman iron age sites. Queen Elizabeth's Hunting Lodge (now a museum) is near The Royal Forest Hotel, two miles off. Local gravel diggings—now forest ponds—are useful for biology; legends such as those surrounding the butcher-turned-cattle-rustler Dick Turpin, give colour to local history. The legal battles which resulted from the enclosure of forest land, and the free grazing rights in the forest which go back to Saxon England; all provide interesting local subjects for study.

The geography of the area is interesting too, for it forms the head-waters of the River Ching, which flows into the Lea. The Lea itself developed from the melt waters of an ice age glacier.

The Importance of Follow-up

In the past Mr. Hoy made little attempt to suggest follow-up topics that might be explored. He now does so because he has found that many teachers welcome it, since it often confirms or stimulates their own ideas. In fact, Mr. Hoy believes that this is a most important side to the work. Not all teachers can see the possibilities latent in a field centre like Suntrap at first, or can think of them only in limited terms. They might see that art and geography come into work in the forest as well as biology, but the possibilities in mathematics for instance, do not at first occur to them.

But, the height, girth and span of trees offer opportunities for lively maths, as does the measurement of the speed of streams, and of bird flight.

This points up a major problem that Mr. Hoy has experienced at the centre—communications. Teachers sending their children need to know, in detail, what can be done, and is being done. In turn he himself needs to know what the schools are doing in order that it can be further developed. He hopes in future to be able to spend more time visiting schools to encourage project work—for instance integrated study of the development of the Lea valley area, geographically, historically and industrially; timber usage in the area; local climatic conditions, and many other projects.

Valuable work might also be done by teachers at the centre in aiding colleagues in schools in the semi-rural environment on the eastern edge of London to develop its study.

It was with all these projects in mind—and so that a two-way flow of information could be stimulated—that a study conference for head teachers from Waltham Forest junior schools is being arranged at Suntrap. This will help to develop contact and explain ways in which children's work at the centre can be integrated with other school work.

While I was at Suntrap a class was having an 'orienteering' morning. This entailed going off, in groups of four at a time, without a teacher, and finding the way by compass bearings along a route of forest rides. Teachers were of course on hand, hidden at strategic points to see no one read south for north, but even so the course was difficult enough to extend the average nine year old. For some children of that age this was a very considerable adventure, even if you knew Mr. Hoy was sure to find you if you got lost.

It was this class's last visit to Suntrap because the next year they would be in the senior school. In the afternoon they climbed the hill behind the centre to look over the Lea Valley. Here Man the creator and Man the destroyer co-exists in several senses: wheat and slag heaps; cable works and pasture land; bird song and gunfire (they were testing machine guns at the Waltham Abbey munitions works)—it was all there between us and the Hertfordshire hills. There to be seen. There to be written about. And if you thought the world was small, there to be marvelled at.

A school is a community which sets itself the task of achieving common meaning. The writer of this article draws on experience as a headmaster to reflect on the problems to be overcome.

Dialogue with the Young

ROBIN HODGKIN

Communication is the essential element in the formation of a community. In a school this means more than the propinquity of pupil and teacher. It is not enough that a school sets up a traffic in ideas and ideals about the outside world; there must also be an achievement of common meaning within the community. For we need to deepen the insight into ourselves, into each other and into the community we belong to. How is this done?

One soon learns, in secondary schools today, that discipline needs underpinning with a much more adequate structure of 'talk' than it did a generation ago. There are occasions, of course, when orders must be obeyed unquestioningly: but these are only likely to be survived without disruptive stress, if people understand that *in principle the instructions could be discussed*—at some appropriate time and place. This need for intensive communication is being more widely realised in industry and politics. Formerly it applied to 'the few who knew'; now it applies to all. Talk in this sense means genuine encounters between people, with silence, searching and perplexity as well as information tying them together.

Another example is codes of conduct. To equate progressiveness in schools with the absence of law is a curious and unfortunate tendency. In one sense only is it justified. If a person makes progress in a skill, he allows the initiatory system of rules and maxims to sink into his unconscious memory and he can then exploit the freedom with which this internalised order endows him. This kind of experience by individuals may have led to the widespread, but absurd, assumption that schools and other communities should aim at outgrowing codes. I have met examples in colleges of education where students yearn for clear elementary guidance in class-room procedures. But, to quote one of these, 'the staff seem conscientiously to avoid giving tips that might be helpful because it would reek of formal methods'. The truth is not that we should eliminate such formal procedures but that people in schools should become more aware of the initiatory and skeletal function of codes. For these are like proteins—hard to synthesize, hard to assimilate, but structurally useful. In society it is people who have earned authority, those who do things well and know how they do things well, who must be responsible for making and changing codes. In schools I do not think there is a rational case for involving children in major law-making decisions; there is a very strong case for letting them see, much more openly, how the process works.

My third example links the first and second. People often say that

mechanical improvements in education (teaching machines for example) are acceptable, provided that they are used to release teachers for the kind of work they do best. Doubtless this is true but it leaves open the question of what *is* the work that people do best when freed by machines. It is not more leisure, nor more knowledge, nor more democracy, nor more change, that machines might provide time for. All these have their place but none will be effective without more unhurried contact between young and old in the context of small groups.

One to One Relationships

The simplest and the most effective contact or relationship is that which exists between one younger and one older person. I still recall, as a six-year old child, hearing my elder brother use that magic syllable 'LET'S—' when some afternoon exploit was afoot. In those four letters are concentrated the essence of education: its adventure, its freedom, its shared but vague objectives and the joint endeavour of the young and the less young.

If we could understand more fully how this 'joint psychology' works, uniting teacher and pupil in a shared aim, we might build educational thought on a firmer basis. Is not this the fundamental unity, the basic coupling, from which theory should grow? But because such teacher/pupil situations are generally of brief duration or are diluted out of all recognition by large numbers in schools, they are difficult to isolate and treat scientifically. One does experience them in small teaching groups, in tutorials which are not hurried and in the coaching of physical skills. Such couplings are also not infrequently met in counselling situations, when an experienced tutor or housemaster becomes involved, for quite long periods, in a therapeutic clinch with some wayward boy or girl. The skills and goals to be transmitted here are not practical or intellectual but social and psychological.

As we move down the scale from large groups to small we are moving away from the level of objective social science, where statistics and general rules may be important, to a level where we must be deeply involved and, for a while, must diminish our objectivity. At the same time our concern shifts from considering what has happened (and may be analysed) to the field of what might happen (and may be symbolised). This leads us to reflect on the meanings of people, the 'more' which might emerge in future from the present 'less'. It is as though two climbers of differing experience and capacity were scaling a steep ridge, looking up towards unknown difficulties. The future of the enterprise depends not only on synchronous action but even more on shared objectives and shared trust.

The nature of the dialogue between older and younger people is certainly something of a mystery. We understand a good deal about the transfer of trivial information—the sort of teaching simple machines could do—but we know little about the transfer of emotions, attitudes and aspirations. In the examples that follow I shall be emphasising the asymmetry of the relationship—'they don't see us the way we see them'. I shall also be suggesting that 'our way' (that of adults) inevitably tends to be coloured by our wider experience and our capacity for analysing; 'their way" tends towards feeling and symbolism.

Seeing Meaning

My first fictitious but familiar example is Jim (aged 12) who has just been caught smoking. This is contrary to the rules of his school and it is the third offence in a month. He will have to be punished. But this will solve nothing and it will not free the teachers concerned with Jim from feeling (not for the first time) both flouted and frustrated. They can ease the weight of these feelings a little by recapitulating some of the causes which lie beyond their control: the boy's sense of insecurity in regard to his father, his anxious chain-smoking mother etc. These help to explain Jim's intransigence. But we often need to go further than this and to feel how the offender feels.

As D. W. Winnicott has written: 'The child knows that in his bones it is hope that is locked up in the wicked behaviour, and that *despair* is linked with compliance and false socialization.'

We need to suffer something of the claustrophobia of school routine, to feel Jim's yearning for urgent, youthful freedom and to share the thrill (cheap but real) of slipping over the stile behind the gymnasium and of escaping, up into the woods. And we need to share the not-so-cheap pleasure of lying back in silence and looking at the space of sky in green tracery and of then—with mature skill—blowing smoke rings. Further, I think we must admit that this may be as much a spiritual experience for Jim as a communion service or a Quaker 'silence' or a symphony might be for us. For Jim, at this particular stage, these minutes may have been the nearest he could get to the ultimate meaning of life. Such reflections do not, alas, stop us from punishing him, though they may, a little, alter our manner of doing so. I have perhaps over-emphasized the poetry of this small action of revolt; but it is always better to err in the direction of seeing too much meaning in the free acts of children, than too little.

What in this context does 'meaning' mean? If you asked Jim, the answer would probably be a blank stare, veiling his view that you were a nut case. But if, in thirty years, Jim could look back on his youth, though much of his experience might appear dim and mechanical, he would see in this grey ocean, a chain of sun-lit islands which were those scattered times when he felt free, happy, human and himself. It is the vague anticipation of such moments that gives some meaning and purpose to the often painful business of growing up. If Jim or Jane ever envisage this sunlit archipelago their symbolism may be a little naive—pop stars, Lotus cars and probably love-making. Such hedonism may seem to adults a little restricted; but for the young, without the groundwork of such simple hopes, no seeds will grow.

It is not merely in isolation and revolt that children dig the soil of their freedom. More important, though less spectacular, are the situations where skills and attitudes are transmitted from parent to child, from master to apprentice. When this happens it is always in the context of a shared aim. But distant aims which seem obvious and powerful to an adult may have no value at all to the child. For the daughter who 'can't decide about her future', discussion may be useless; but if mother and daughter get down to the job of converting that stewing steak into an authentic *goulash*, they will at least exercise their joint powers of imagination. It is this, I think, which generates the field where motives form.

Our adult vision of what a child might become is important but it should be a private, hopeful, tentative affair. It is not our business as parent or teachers to start furnishing or narrowing this field of motivation, though occasionally a well-timed jolt may do no harm. A reasonably gifted and stable child resolves these private problems sooner or later—often later. But what of the less able or disturbed child? It is tempting for us to imagine nothing, to shrug our shoulders with pessimistic realism. This may be a serious mistake. True, the scales may appear to be weighted against 'success'. But what is success? What of our own past follies and near escapes? What of the 'less able' men and women who befriended us as children? What of the strange developments in poetry, courage and even sanctity that might flow from this grubby source? To believe in unpromising children is partly to confess our own ignorance; but it is also a creative act. These thoughts need not often be expressed; but they can be deployed in such a way as to upset the dull machinery of probability.

An Example—Mr. Brown

I have a housemaster in mind, again a composite fiction. Let us call him Mr. Brown. His skill in human dealings is largely practical. He is not prejudiced against psychology, nor is he much interested in it. He is interested in children—his own family and the children in his care. Most schools have their problem children; and most, fortunately, have some teachers with the gift of getting the best from them. Mr. Brown was one of these.

John was one of the problems. At the age of eleven he entered Mr. Brown's house. Within a week he was suspected of slitting the tyres of one of his 'enemies'. (Later a list was found). Within a month other destructive and vindictive incidents were proved. Headmaster and housemaster gradually extended their picture of the boy and his background. They had met the parents, a conventional and serious minded pair who worked abroad. But it now became apparent from correspondence, that the father was a rigid perfectionist who claimed to have overcome the difficulties of his own childhood by the exercise of traditional British virtues. Mr. Brown guessed from other clues that the mother had learned, long ago, to button up most of her emotions and to display a correspondingly austere front.

These mental portraits of John's parents were provisional and shadowy in Mr. Brown's mind. But his picture of John was clear and discouraging. In addition to vandalism he was beginning to show powers of leadership and these were almost always in the wrong direction. With other members of staff, especially with one rather insecure science master, the relationship was characterised by calculating truculence on the one hand and on the other by thinly concealed fear and disciplinary deadlock. The headmaster usually arranged that Mr. Brown, rather than himself, would deal with the periodic crises which emerged. But there were a few signs of hope. Though John was ready to lie, more or less on principle, he showed, in argument, a respect for truth and he could sometimes see a joke. He had also taken a liking for Mrs. Brown. These were small shreds of comfort for the hard-pressed Mr. Brown. Then one or two parents of other children began to complain.

This kind of situation will not be entirely unfamiliar to secondary teachers. I have sketched it, not to evoke sympathy in the reader's

mind, but as a reminder that this kind of situation is extremely common. We need to pause more and to understand what is going on all round us. Mr. Brown does not say, 'My boy, behind the mask I recognise great possibilities. . .' He does see more deeply than he can formulate in words, then acts on what he sees.

Mr. Brown's actions might give the casual observer an impression of inconstistency and inconsequence. He is often too busy—genuinely busy. Sometimes he will be very outspoken and occasionally angry (but angry about happenings rather than with John), sometimes he will enjoy the boy's conversation, sometimes he will be withdrawn, often he will do nothing and just wait. If there are punishments they must be as impersonal as possible and with no nagging. To his colleagues and headmaster Mr. Brown advocates restraint and patience. If any of his actions are at the level of calculated manoeuvring, no good will come. But as long as there is firm ground beneath the flickering surface, John will discover it.

Most teenagers are perceptive, practical psychologists; disturbed ones are especially penetrating. What does John see? He realises that he has come up against a rather complicated character. But from early encounters he has sensed that Mr. Brown is not a phoney—not much anyway. John's own emotional attitude swings constantly and colours what he sees. Liking, hatred, a desire to score victories, black depression and perplexity succeed each other and rarely last long. But through this shifting screen of contact and over a period of years, John's attitude gradually centres on a concept which is really too big for him and which had never entered his mind before—what it means to be a man.

It is important to see the contrast between these two viewpoints. Mr. Brown's attitude to John is characterised at first by piece-meal knowledge which provided him with the raw material for building up a vague but hopeful view of John's possibilities. Feelings of positive liking may only grow slowly. John's view of his housemaster, on the other hand, will probably be strongly charged with feeling from the beginning. Only much later will precepts of behaviour and analysis of conduct become related to the remembered father-figure.

If this picture of asymmetrical relationship is roughly true, an important point begins to emerge. Mr. Brown confronted John as an object of feeling and emotion. Understanding him by reason and analysis are many years away. It is not merely psychologists who need to work from a knowledge of symbolism. All teachers need to peer below the surface, less perhaps for scars from the past than for future hope. It is mainly by symbols that new truths enter our minds. They shape ideas and feelings that are too large for our present range of concepts and they include not only the sudden vision of the poet but also the tentative model of a research worker. In the child's rapidly expanding mental horizon such enlargement through fantasy goes on continuously, though his symbolism is usually hidden from inquisitive adults.

In many other, simpler cultures children grew and were initiated into a world well provided with symbols of manhood and womanhood. But today the ritual and the folk lore are thin. Now it is mainly people, stripped of all regalia, who must mediate meaning. To proclaim the message often weakens it; a man and a woman are their message and their meaning lies beyond them, partly in the future.

In the field of teacher training, it is particularly important to distinguish between the philosophy of education and the general theory of education which derives from successful teaching techniques.

New Look in Philosophy

W. S. FOWLER

Current revaluation of the form and content of courses for teachers in training has led to renewed scrutiny of the concept of the 'philosophy of education'. The phrase is frequently used in what might be termed a non-technical sense, where it is simply a convenient shorthand method of referring to a correlated body of information upon educational topics. Used in this loose sense, it may only indicate a subjective list of desirable educational objectives. If the phrase has any further connotation it is an emotive one, acting as a prestige-emitter or a status-giver: to talk of the philosophy of a subject is to add to its respectability.

Courses in the philosophy of education traditionally refined this omnibus concept down to the study of selected writings which reflect the views of the 'great' philosophers on educational topics. Such courses often suffered from the difficulty that the educational principles of the great philosophers cannot readily be understood without a knowledge and understanding of their general philosophical standpoint. Again, many of the most influential thinkers in education have developed their theories from standpoints which it is now generally recognised are philosophically invalid. Sometimes an approach towards the discussion of contemporary problems in education is made through using the *obiter dicta* of the great philosophers as a convenient text or starting point upon which to base discussion. Such approaches may be of value but they cannot of themselves justify the title of 'The Philosophy of Education', where this subject is to be considered as a rigorous discipline existing in its own right.

The radical revaluation of the nature and purpose of philosophy itself which resulted in the birth of logical positivism led to a more precise delineation of the concept of 'subject' philosophies, such as the philosophy of history and the philosophy of science. The basic positivist doctrine, as originally expressed by Wittgenstein in the *Tractatus*, was that philosophy has no specific corpus of *fact* to offer which can in any way be regarded as extra to all the other facts known to us through other disciplines; the purpose of philosophy must be regarded not as an attempt to add to the sum total of our knowledge but rather to analyse and clarify such knowledge as we already possess. A further postulate was that the meaning of any given statement is constituted by the method by which the statement is verified. Statements which are not capable of empirical verification were to be regarded as neither true nor false but either tautologous or meaningless.

It followed that many propositions and questions which had been raised on philosophical matters from the earliest times, were not

problems at all: they were either linguistic muddles or pieces of Lewis Carroll nonsense. In particular, the whole sphere of speculative metaphysics was to be 'cast to the flames'.

It was some time before the new philosophy came to be applied to the study of education. Attention was first focussed in this direction by C. D. Hardie in a little known book entitled *Truth and Fallacy in Educational Theory*, which was published in 1942. By 1957 the *Year Book of Education* had devoted an entire issue to the topic of philosophy and education; in the same year D. J. O'Connor sharpened the attack upon the traditional framework of educational studies in *An Introduction to the Philosophy of Education*. Using the techniques of logical analysis, O'Connor demonstrated that many problems in education were confused by the umbrella type of language in which the problems were formulated. The task of the new philosophy of education was conceived as consisting in the sorting and delimiting of the individual elements or strands which could be unravelled from general statements about education. Typical eludications demonstrated that many questions which had commonly been discussed under the title of the philosophy of education, were reducible to psychological questions, to sociological questions or to historical questions: many educational questions were further shown to contain strands from each of these individual subject disciplines.

In the hey-day of positivism it was implicitly assumed that the application of the analytic scalpel would result in the withering away of questions which were really pseudo-problems or semantic muddles. However, even if it is admitted that the solution of many educational puzzles is facilitated by an elucidation of their correct logical geography, a hard core of difficulty remains: this arises from the fact that, in the dissection of educational puzzles, one section of the jigsaw must often be assigned to the sphere of value judgements: it is precisely in the sphere of such judgements that the positivist analysis itself proved least convincing.

On the credit side, the great contribution of the new philosophy to educational studies lay in the fact that it helped to clear away much of the lumber of educational discourse: the residual core was to be restyled as philosophy *and* education.

Many educationists were nevertheless at this stage left with the deep-seated impression that there was much more to be said: after reading a typical exposition of the new philosophy applied to education it was commented that one knew a lot more about philosophy but a lot less about education. This feeling was partly occasioned, as has already been remarked, because the programme of the new philosophy was most deficient in those areas which are most important for education i.e. conduct, value judgements, and justifications. The situation was complicated by the fact that the philosophical analysis of educational topics was at this stage largely undertaken by philosophers who had turned their attention to educational topics, rather than by educationists who had adopted techniques of analysis. Furthermore, educationists rightly claimed that in the new philosophy much that was relevant to the total educative structure was omitted: were these omissions due to philosophical irrelevance or to educational ignorance? Again, it was argued that the scientific 'model' upon which the claim to success of positivism largely rested, was not completely transferable

to a discipline such as education which is concerned to a large extent with intentional activities.

Finally, by the time that the original new philosophy had begun to percolate into educational writings, the philosophy had itself started to move in fresh directions. One of the most significant shifts had originated in America in the work of C. L. Stevenson who in *Ethics and Language*, demonstrated that many utterances which apparently were cast in the form of factual statements were really expressions of the *attitude* of the speaker, and could be reformulated as exclamations, or exhortations. The hortatory and emotive element in many educational 'statements' is now more generally understood and accepted.

The lag between shifts in general philosophical thought, and their application to education is now showing signs of diminishing and a 'new' new-philosophy of education is beginning to develop. Instead of offering instant solutions in terms of language, truth and logic, the 'new' new-philosophy has set itself the task of patiently attempting to unravel and define the content of specific educational situations. Symptomatic of the new trend has been the formation of the Philosophy of Education Society of Great Britain and the establishment of philosophy of education groups in the area training organisations of university schools of education.

Implications for Training

What are the implications of the new-philosophy of education for the teacher training field? Most importantly, it is necessary to distinguish its logical geography from that of the general theory of education. A general theory of education will be comprised of abstractions from successful teaching techniques, psychological considerations about the nature of learning, child development and intelligence, and moral and sociological criteria in a given historical context. Included under the 'umbrella' title of the theory of education would also be the specialised study of the philosophy of education. This study would in part have a regulative function to fulfil in the 'clarifying' sense, already mentioned. It would, however, also include discussion and evaluation of, for example, moral and 'justification' concepts in their specific educational context. Thus, whereas a consideration of the concept of equality might be regarded as falling within the province of moral philosophy in general, the concept of equality in the school situation is sufficiently *sui generis* to form a legitimate field of study for the specialised philosophy of education.

A good example of this part-analytic, part-synthetic approach to the philosophy of education is found in R. S. Peters' *Ethics and Education*. Here many of the traditional questions of moral philosophy are discussed in their specific educational context. Such problems are the concepts of freedom and liberty, respect for persons, the place of authority in education, and the presuppositions and justifications for the school as a democratic institution.

The dissection of educational terms has in fact proved to provide unexpected complications and difficulties: this is evidenced even in such a bald listing of educational aims as was attempted by Bloom in *The Taxonomy of Educational Objectives*. For example, if it is accepted that education must be partly concerned with the conservation and

transmission of knowledge and culture patterns, it remains necessary to distinguish knowledge in the sense of the recall of specifics (again capable of subdivision), knowledge of methods of organising and judging, knowledge of conventions, classifications, categories, knowledge of principles, abstractions, generalisations, structures and theories. Furthermore, as Gilbert Ryle established in *The Concept of Mind*, published as far back as 1949, a fundamental distinction must be made between knowledge in the sense of knowing *how* (knowledge of skills) and knowledge in the sense of knowing *that* (knowledge of facts etc.)

Again, the acquisition of the various types of knowledge constitutes one of the aims of the learning process, but what does it mean to say that a child has 'learnt' something? What is the relation between learning and 'understanding'? As Hamlyn remarks in *The Concept of Education*.

> 'Even at the simplest level the acquisition of knowledge of facts, goes hand in hand with understanding. Even in rote learning it is essential to understand what is going on, and in higher forms of learning, understanding is much more important still. Thus words like "history," "physics" and "mathematics" are not just the names of bodies of knowledge in the sense of sets of true prepositions; they are, if anything, the names of approaches to facts of generally different kinds.'

The putative stages between initial observation, learning and understanding, between instance and concept are defined in Piageton psychology by the terms assimilation and accommodation. Our knowledge, in any given case, is structured both by the object itself and by our appreciation of the object: knowledge contains both an objective and a subjective element and these elements are mutually qualified in the apprehension of a situation. But as Hamlyn points out, this Piageton analysis is a psychological and physiological one, dependent upon the presuppositions of the writer. It is fairly clear that Piaget is relying in fact upon a biological analogy where a cause/effect relationship is involved. But, from the standpoint of the *philosophy* of education, the point at issue here is whether the Piageton analogy is, in fact, strictly applicable to learning situations. Furthermore:

> 'If the employment of a biological model is misleading in giving us an incorrect understanding of what the acquisition of knowledge consists in, it also has misleading implications of a more directly philosophical kind. It suggests that the balance to be attained is one between something about the individual which is essentially subjective, i.e. the concept, and something about the world around us which is clearly objective, i.e. the object. Knowledge is thus a blend of the subjective and the objective. But the relationship to which I have pointed as existing between concept and instance is not one between the subjective and the objective. It is not up to an individual to organise, in thought, what he is confronted with any way he pleases—or if anyone shows signs of doing so, we think of him as mad.'

It follows that there is a clear necessity to distinguish between the logical and the psychological aspects of the learning process: such clarifications lie within the province of the philosophy of education.

Many educative presuppositions are capable of similar philosophical treatment. Thus in *Philosophical Analysis and Education*, Hirst con-

siders liberal education and the nature of knowledge. As may be seen from his conclusion, the fruits of philosophical analysis are not to be regarded as unrelated to educational practice:

> 'The aim of the study of a discipline in liberal education is not that of its study in a specialist or technical course. The first is concerned with developing a person's ways of understanding experience, others are concerned with mastering the details of knowledge, how it is established, and the use of it in other enterprises, particularly those of a practical nature. It is of course perfectly possible for a course in physics for example, to be devoted to a double purpose if it is deliberately so designed. It may provide both a specialist knowledge of a subject and at the same time a genuine introduction to the form of scientific knowledge. But the two purposes are quite distinct and there is no reason to suppose that by aiming at one the other can automatically be achieved as well. It would seem to be true that some specialist study within a discipline, if it is at all typical of the discipline, is necessary to understanding this form of knowledge in any developed sense. The study of a discipline as part of liberal education, however, contributes practically nothing driectly to any specialist study of it, though it does serve to put the specialism into a much wider context.'

The further the process of analysis proceeds, the more urgent does the problem of justifications become: Plato, like nature, expelled from the front door persists uncomfortably in his attempts to creep in at the back. Here a recent welcome sign has been the establishment of the Farmington Trust and its associated research unit set up in 1965. The function of this unit is to conduct detailed research into the question of moral education and it is expected that the work will occupy at least a decade. The first report of the Trust issued in 1967 under the title *An Introduction to Moral Education.* The function of philosophy in the research unit's programme is quite clearly stated:

> 'Before inflicting a certain amount of conceptual analysis on the reader we must make it plain that without both a clear and adequate interpretation of moral education, a good deal of research and practical work in this field is likely to miss the point . . . It is here that some philosophising is essential for there is no way of getting an adequate definition except by examining the use and meaning of words and the ways in which those uses and meanings are inter-connected. Words are governed by rules, of which we are often unaware. Because they are governed by rules, we can speak of an "adequate" interpretation of the phrase "moral education" and because we are often unaware of them we need to do some philosophy.'

The Plowden committee pointed out the need to analyse the effectiveness of existing patterns of training for primary school teaching, and considered that the entry of graduates into this area should be encouraged.

Graduates for Primary Schools

MARGERY COOPER

In accepting the principle of desirability of preparation for teaching, the Department of Education and Science has followed the simple policy of accepting all graduates who choose to make teaching their career. In 1967 there was an unprecedented demand for places in university departments of education and those colleges offering a one year qualifying course. An 'emergency' situation almost immediately came into existence and the Standing Committee 'B' of the Universities Council for the Education of Teachers was called to examine likely trends for the remainder of the university quinquennium. In 1967, 5,722 graduates entered education courses of whom 4,239 were in university departments of education and 983 in colleges of education. The committee had access to two estimates of demand for the following four years: their own viz; 6,600 graduates in 1968 rising to 7,120 in 1971: the second, that of the ninth Report of the National Advisory Council for the Training and Supply of Teachers giving 6,900 as the estimated figure for 1971, a figure which the Department of Education and Science adopts and breaks down into 5,400 graduates for the university departments of education and 1,500 for the colleges of education. The majority of these graduates without doubt (probably 96 per cent) are expected to be planning to teach in secondary schools, but it is a fact that interest in primary schools among graduates is growing. In one Department over three years, the increase has been 6 per cent and at least one university school of education has set up a department solely concerned with graduates wishing to teach in primary schools.

Undoubtedly the Plowden report pronouncement has been partly responsible, but there are other circumstances both intellectual and societal which could have contributed to the increased demand. New trends in the education of young children arising from psychological investigation, e.g., the work of Piaget and Bruner on concept development and the resultant changes in the teaching of mathematics and science, and curriculum expansion consequent on research by Wallach and Kogan in the field of creative arts, have a certain fascination for graduates in psychology. The idea of team-teaching (admittedly not exclusive to primary schools) makes its appeal to some graduates who see the value of combining the functional effect of specialist study with a more generalised approach. Many women graduates, with early marriage in mind, judge the prospect of a career in married life more positively from the primary school angle and frankly confess their wish to study child development in their professional course.

Among mature graduates the connection is real; often they have children of primary school age, or in changing professions in the middle of

the stream of life they choose to teach younger children, particularly if their degree is in general subjects. The child orientated affluent society of which many young graduates are products has left its mark—young children are seen to be delightfully demanding and full of interest. Furthermore, graduates, in stating this preference, do not conceal the prognostic element of their choice. Men have often mapped their future career. A psychology graduate with experience in primary schools is a good candidate for the diploma in educational psychology with a subsequently wide professional field from which to choose.

A modern language graduate now views promotion prospects in the primary world as more favourable and more varied. An arts graduate, with one year of research completed, can see the possibility of a college of education post even after limited experience; while a graduate in drama looks towards the developing children's theatre movement with its need of educational advice. Even while others avow the altruism of their choice, it is obvious that doors of promotion will only need a slight twist of the handle.

The Present Position

The Graduate Teacher Training Registry, in a tabulated survey of information for candidates for postgraduate courses in university departments of education and colleges of education in England and Wales, gave names and details of courses offered by departments in the scheme, including those for primary education. Four university departments offer courses for infant teachers (one of which is stated to be carried out in the city college of education) and a further seven departments offer junior courses. In the colleges of education, where 1,000 graduates overall were admitted in 1967, the provision for primary work can be analysed as follows: of 22 colleges offering a one year course (secondary and primary) 12 offer infant courses or infant/junior courses or both, and in addition, all colleges offer junior courses or junior/secondary or both.

The provision of opportunities for the primary graduate could thus seem reasonably wide, but in order to secure a place, some graduates must make a break from university and look to the college provision. The decision to seek entry to a college of education after university life is not always an easy one.

With some exceptions, however, it must be clear that many university departments do not have the same facilities for a primary professional course that the colleges, whose tradition in the work is much longer, can offer. The range of staff, particularly in the expressive arts, with experience of work in primary schools common to all colleges, is not equalled by most departments. Teaching and practical lessons are better equipped in colleges. Often too there is a long tradition of play group/children's club activity and other child orientated fringe professional activities so much a part of college life, and which feed into overall professional preparation. The one-year course can be enriched by an overlap with conventional courses, but there is a danger of it not being sufficiently prescribed on its own account. Perhaps ideally those universities which have established a children's centre should undertake to absorb a high proportion of the expected increase of demand.

Some Problems

The major problem is one of time available, Plowden states it admirably: 'an academic year of nine months or less, allows too little time for the range of work which has to be covered or for developing an understanding of education and child development'. Alleviation of the problem could come, as suggested by Plowden, in the experimental scheme of a two-year course; the first grant-aided, the second salaried but with alternation between training and teaching with final assessment postponed until the end of the second year. Alternatively, it suggested special help could be given to primary graduates in their probationary year. Both ideas are useful but not new. It could be that universities providing a professional course concurrent with degree studies (e.g. Keele) have some advantages and that results from such courses need to be further examined.

A statement from the Plowden Council on the desirable emphasis for courses common to colleges and university departments mentioned the following points: the need for an understanding of child development, an acquaintance with the problems of handicapped children, and knowledge of the effects of home and community on children's development.

The real problem at the heart of the course is one of structure, of unifying the diverse elements into a field of practical thought. The tripartite nature of theory, scientific investigation of factors relevant to present practice through psychology and sociology, analysis of ideas through historical understanding and philosophical exploration of these, presents problems in teaching and understanding. Conventional and mature students in colleges of education have three years to attain some mastery, B.Ed. students have four, while the graduate has only one year.

The strength of the graduate's position, however, is well realised. His or her 'A'-level studies have usually been of a high order; three-year degree studies have contributed to a specialisation in knowledge as a skill, from methods which have laid some stress on independent thought, judgement and communication. Furthermore, for graduates seeking education in the teaching of young children, a deliberate choice has been made, and often, for reasons already outlined, motivation is high. On the other hand they seek to study a teaching situation with which they are not familiar, and children of an age which represents the widest possible gap from their own recent experiences. Theory and practice must be seen to be complementary: both harnessed to a critical and flexible approach to the problem of educating the young. Undoubtedly the method courses and opportunities for practical experiences should effect links between theory and practice while tutorial discussions can stress the necessary emphasis primary teachers would seek in major educational issues and assumptions.

The first MSc. course for graduates seconded from industry began at the University of Southampton last September. Similar courses are being planned for other branches of industry. This article discusses the origin, objectives and organisation of these 'Bosworth' courses.

University/Industry Partnership

G. D. SIMS and G. G. BLOODWORTH

Many graduates attend postgraduate courses to obtain more specialised knowledge before embarking on their career, and in recent years there has been a considerable growth in the number and variety of courses available. However, industrial organisations have not, in general, taken the opportunity to send their staff to the universities, but have relied on "in-house" programmes of graduate training. For example, the Arthur report (1965) showed that on the 218 postgraduate courses running in 1964 the average attendance was 7 students, of whom 2 were supported by industry. Some university staff have bemoaned this lack of support, suggesting that industry does not appreciate the advantages to be gained in their staff training, while on their side some industrialists have suggested that the course organisers do not appreciate their real needs. This situation shows an unfortunate lack of communication.

A positive step towards bridging this gulf has been taken recently by instituting new courses jointly organised by industrial establishments and universities. In working together to plan and run these courses, university staff keep closely in touch with the changing needs of industry, and industrial staff gain access to the very considerable resources of knowledge and equipment in the universities. The personal contact also stimulates collaboration in research.

For these joint courses the springboard was the Bosworth report (1966), which aimed to improve postgraduate education and training for the electrical and mechanical engineering industries. The new courses were visualised as 'matching' sections bridging the gap between academic studies and training for an industrial career. Each course would combine study in a university with training in an industrial establishment. A key objective was to attract graduates of the highest calibre into industry, and the Jones committee backed this initiative in their report (*The Brain Drain* (1967)) which showed that most of the top graduates chose careers in the universities and the Civil Service and, of course, emigration.

The first full-length 'Bosworth' MSc course began at Southampton last September, after two years of negotiation between the university and the companies and ministries involved. The delay was due not to any lack of goodwill and effort, but mainly to the difficulty of evolving an acceptable financial structure to cover the combination of university education and industrial training. This structure will be outlined here, since it must be the starting point for similar developments to follow elsewhere, together with an account of the course content at Southampton.

The Southampton Centre

The electronics industry is currently being transformed by the techniques of microelectronics. Transistors, resistors, and other components previously manufactured separately and them assembled into equipment are now being fabricated with their interconnections in one series of operations on the surface of (for example) a silicon crystal and thousands of components are made simultaneously. These techniques produce complex circuits with increased reliability more cheaply. Integrated circuits have already been used in computers, and are now being introduced into radio and TV sets. Also, new applications for electronics are becoming economic, notably in motor-cars and toys.

To exploit these developments, electrical engineers and circuit designers must understand the physical operation of semiconductor devices, and physicists and chemists must be recruited and trained for development work on new devices. This development work involves advanced solid state and electrical theory which is not included in undergraduate curricula in this country, except in a few honours courses in electronics. The semiconductor industry must draw graduates from a wide range of disciplines, and a concentrated university course is an effective means for them to acquire the relevant knowledge and to begin creative design using it. Lectures on the details of specialised techniques can be given by industrial staff visiting the university.

Although facilities for fabricating semiconductor devices have been set up in a few university departments having strong research groups in microelectronics, it is important that students should have experience of operating the more sophisticated equipment involved in large-scale production. Also, they should learn a good deal of statistics and see this theory is applied in the practical specification, testing, and selection of semiconductor devices. In these and other areas there are clear advantages in a course divided between a university and a factory. A 'Bosworth' course was suggested to help solve the problems of recruitment and retraining in the semiconductor industry, and a pilot study was commissioned in 1965 by the Committee on Manpower Resources in Science and Technology.

Following this study, it was proposed that a centre for postgraduate education and training in semiconductor technology and microelectronics be established at Southampton. In the university, the department of electronics already had strong interests in microelectronics, and the Southampton factory of Associated Semiconductor Manufacturers Ltd. was one of the biggest plants of its kind in Europe. At the outset, the project was given the blessing of the Conference of the Electronics Industry, a body representative of both manufacturers and users of semiconductor devices. The conference, through its newly established education and training board, set up the Semiconductor Advisory Board which comprises representatives from the university and from ASM Ltd., and several other semiconductor firms. The functions of the board are to ensure that the course content meets the needs of the industry, to make the financial arrangements, to circulate information within the industry to prospective students, and to allocate the 24 places available. It was decided at the outset that the course should be aimed at 'high flyers'—mainly graduates with first or upper second class honours, and that most of them should be sponsored individually by industrial or government establishments.

The course has been mounted at a time of great financial stringency and the help of many bodies is gratefully acknowledged. The University Grants Committee has contributed to the initial costs of equipment and staff, but the university has to charge an economic fee (£500) for the course. The Science Research Council has provided "industrial studentships" for the staff of industrial concerns, without requiring them to fulfil the normal qualification of at least one year of prior experience in industry. This means that the SRC pay the university fee and at least £530 p.a. towards the student's salary. His employer receives some £540 from the industry training board, which counts part of the course as industrial training. The initial equipping of the industrial arm of the centre has been greatly helped by a loan from the Department of Employment and Productivity. A second fee is payable to cover the running costs at the factory, which are inevitably high because the specialised services and materials are very expensive. Total fees for the 16-month course amount to nearly £2,000, which though perhaps frightening at first sight should be compared with the training charges of up to $1,000/student-week quoted by some American concerns. There is little doubt that in this country near-economic costing of courses will be necessary on a much wider scale in future if we are to develop appropriate education and training facilities for the whole range of modern technologies.

The Course Timetable

Microelectronics technology depends upon the production and processing of extremely pure materials, and about one-third of the technological content of the course is devoted to this subject. Other parts deal with the theory and production of electronic devices, and the ways in which the devices are combined together to produce electronic systems. As well as covering present-day technology, the course looks forward into the future, for men entering the industry today will tomorrow be concerned with a variety of more sophisticated techniques, for example, computer-aided design of integrated electronic systems.

The periods spent at the two establishments are planned to develop the student's knowledge in the most effective sequence. For the design and manufacture on an integrated circuit, which is one major theme, the sequence is as follows.

In the first term the students study materials science, the operation and design of transistors, and the technology of the vital 'silicon planar' process, using the laboratory-scale equipment at the university. After Christmas they began studying at the factory the whole range of processes used to manufacture reliable devices on a large scale, including the methods of quality control. This knowledge is the pre-requisite for design. After Easter the students will begin, part-time, to design their own integrated circuit for a fast computer. During the same period circuit designers from several organisations will lecture on their own work and discuss the developing design of the class. In July, the students will return to the factory to work full-time for three months to complete the fabrication and assessment of their circuit. To this end, the class will work in groups of about four students each, and will themselves have to arrange the division of work within and between the groups, working to realistic time and cost limits.

This group project activity is an extremely important factor in the

course. The key to a successful career in a modern science-based industry is the ability to work effectively in a group with scientists and engineers qualified in different subjects. By contrast, the established processes of academic education, from the grammar school through university to the PhD degree, mainly develop the art of individual study and of research within separate disciplines. Clearly, we need not dwell here on the virtues and values of such education, or take space in qualifying our generalisation. We do emphasise strongly the value we attach to the group project work as a matching activity in the transition from university to industry.

It will be noted that the course content includes industrial economics, operational research, and marketing. This important group of subjects is basically concerned with profitability and how to achieve it. Every industrialist should appreciate the *raison d'etre* of his firm, and in the past we in the UK have consistently failed to capitalise on our great capacity for innovation in science and technology. The pursuit of research for its own sake has only a limited place in industry, and even those pursuing it should be 'cost-conscious' and appreciate the necessity for the company to earn its living.

A further series of lectures under the heading of 'technology, organisation and social change' deal with the broader sociological implications of technological developments. The future leaders of the industry should appreciate the consequences for society of the work they undertake. The 'electronic revolution' is having every bit as great an impact on every day life throughout the world as did the Industrial Revolution and in predicting its significance we can probably equate the microcircuit with the steam-engine.

The Future

Students completing the course successfully will qualify for the MSc degree, which is an added attraction though, rightly, not all Bosworth courses see this as a necessary end point.

The first course began in September 1968 with eleven graduates of whom three have first class honours and five have upper second class honours. Vacant places were to be expected in the first year in view of the problems of communication with potential industrial sponsors and students. Also, it must be admitted that a few first-class applicants finally chose the alternative of PhD research. That Bosworth courses should have parity of esteem with university research courses is the expressed wish of government spokesmen, as well as those directly involved, but this obviously cannot be achieved in a matter of months.

Planning the course has been an exciting experience, despite the formidably complicated financial support structure which has had to be evolved. We now have to make it succeed. We hope to widen its content and appeal, to make it serve a wider range of firms in the electronics industry, and we have flexibility and staff resources to do this. Future success will depend largely upon the advisory board sensing the Industrial pulse and ensuring that the course (a) is what the industry really requires and (b) is widely enough publicised within the industry. Since the course is dependent for its financial support on industrially sponsored students, its survival and success will be as much the responsibility of the Industry as of the university: the future thus offers a worthy challenge to all concerned!

The author, who recently spent a year in the USA studying management education, compares what he saw there with British practice.

Management Studies

P. D. DUDLEY

The first report of the UK Advisory Council on Education for Management was published at the end of 1962. Since then there has been substantial development in universities and other establishments of higher education. The advances made are discussed in this article and comparisons are drawn with the situation in the US. Such a comparison brings out the need in this country for further developments in business education and management studies. Many agencies, industrial, educational and professional are concerned. The need for suitably qualified teachers and for adequate financial resources is emphasised, to provide varied and flexible courses of study, designed against a background of consultancy and research, and executed in institutions sufficiently large and diversified to meet the wide-ranging demands of modern industry.

The United States has been long in the field of business education: there are well over 150,000 undergraduates taking degree courses in business studies. In general the pattern gives about half the time to liberal arts subjects and half to more specialist studies. The school of business in a college or university may offer a range of seven or eight alternatives of this kind, such as accounts, business analysis, financial management, industrial relations, international aspects, marketing, production and operational research. Despite the Ford and Carnegie reports there are still some undergraduate courses which are heavily specialised.

In major schools there has been a tendency (and this continues) to live off more advanced work and to establish graduate schools of business. It is courses leading to the degree of master of business administration, (the MBA programmes), which provide the backbone of the graduate schools. These now have an output of over 6,000 per annum. This is expected to rise to 10,000 in 1970 and to 40,000 in 1990: it is reasonable to conclude that such proposals have the backing of US industry as a whole.

The MBA is normally a two-year full-time course, but in many instances it may be taken part-time. Usually some compulsory subjects are contained in the first year and there is an element of specialisation in the second. The majority of business schools give some or full exemption from the first year of the course to holders of a first degree in business, but the cream of the schools, perhaps 15 per cent of the total, give no exemptions whatever—the two year course must be taken irrespective of previous studies. The approach varies considerably in different institutions and many Americans would consider this to be one of their great strengths. It is possible to take the form of course or the particular specialisation which is most suited to the man or industry or company involved. The graduate business schools expect a wide range of background in their entry. They aim to recruit from

amongst the top third of all graduates, and are selective, normally using tests of aptitude for business in addition to other academic criteria and records before making decisions. (The 'Princeton' tests are being used on an experimental basis in several institutions in this country). The aims of the MBA programme are quite clearly stated by some American universities. What is significant is the deliberate intention of creating a way of thinking, aimed at promoting ability to assess objectives and the strengths and weaknesses of an organisation, the resources available and the tactics required to reach the objectives. They aim to produce a man able to understand his specialists, who can assess the relativities of the advice he is given and the impact of one functional act on others and on the organisation as a whole.

In addition to the MBA programmes, there are also master of science programmes, which contain a greater element of specialisation in the functional fields. There may be 40 per cent or more of specialisation, but it is still taught against a general business background. It is significant that industry seems to express less demand for the specialist functional men from the master of science programmes than for the more general MBAs.

Management Teachers

Many graduate schools also provide doctoral programmes, the DBA or the PhD, with an output now of over 300 a year. This is the main source of teachers for the leading institutions. In any 'accredited' institution at least 80 per cent of teachers must hold a doctor's degree. This involves three years of full-time, or equivalent part-time, postgraduate study, one year across the whole field of management, a year of study in depth in one or two fields and a year of research in industry leading to a thesis. In addition there will be tough oral and written examinations. This then is the normal pattern by which teachers of management studies are produced. It is very different from that in this country. Here the average teacher, after obtaining a qualification, has probably spent some ten years in industry, perhaps with one or two firms, and then moved into management teaching, where he has often to extend his knowledge by reading and by learning from his own students. This would suggest a substantial gap between American management education and the position in this country. It underlines the desirability of making the maximum use of all facilities which will assist the development of teachers involved. Nevertheless there are certain strong points in the British system. Our tutorial arrangements are a great strength, in part one of the diploma in management studies, for example. One of the big US business schools has recently found that to have a group of 'homogeneous' students taking a course together has led to a greater degree of success than having students taking subjects on a 'cafeteria' basis. There was admiration for our National Examination Board in Supervisory Studies and the systematic and integrated scheme for training of first line management which it offers, with courses at many colleges. But the critical issue in the UK is clearly the supply of management teachers, possessed of a sufficiently wide background, both academic and practical.

The early introduction of doctoral programmes in the UK business schools is likely, but four or five years must elapse before there is an output into management teaching. In the meantime the pressure of

demand grows strongly. There are over 4,600 students in courses for the diploma in management studies. There was a very heavy excess demand for places on MBA courses at the business schools. Courses for the qualification of the professional management institutions are expanding and there is substantial growth in trade union and supervisors courses.

In America 29 universities have institutes of industrial relations; supervisory studies are commonly handled at the universities; consultancy and extra-mural services to trades unions are taken for granted.

The Scope of the Work

In the US business schools administration is regarded as possessing basic elements common to business and to the public services, including education. As a matter of course the US Civil Service and the Armed Forces send men to take the normal university programmes. There is a strong development towards schools of administration rather than schools of business.

The social responsibilities of business are being introduced into many courses. Not only are the shareholders, customers and employees to be considered, but there is the community as well, as the fourth 'leg' of the stool. Great importance is attached to international aspects of business. In the business schools's library there are the full report and prospectuses of the 500 leading companies in the USA, and the 100 leading international companies. I was able to take part in case studies concerning British companies in former British colonies, written up by British doctoral students. Massive aid is being given to development of business schools overseas and to building up corps of training staff. Special attention is given to particular trade areas, and this makes a valuable contribution to the competitiveness of American industry.

An understanding of the computer and its application was taken as a matter of course. There is a computer in each school of business and commonly teletype links with computers outside. Its use is an integral part of the programmes.

On the social science side, the amount of work being done in group and inter-personal relations, sensitivity training, was impressive. Techniques have been evolved in this field to which great importance is attached and which have been responsible for remarkable developments in the personnel policies of very large companies. Another prominent aspect of social science is the study of the organisation as a whole, leading to detailed consideration of the effects caused by alteration in one part. This is tremendously important in the context of planning for changes and of productivity bargaining, a field now developing in Britain.

Teaching and Consultancy

The management of small businesses is regarded as an important aspect of the general problem and a Federal Agency has been established to deal with this. It uses the educational organisations as the providers of courses, but such work must also involve counselling and the development of teaching material specially prepared to meet the needs of the small business. If we in the UK are to do the same, it is clearly desirable to establish focal points for small business studies at

which expertise and teaching material can be developed. Two day, week-end or evening courses may be all that managers of the small business can attend and the centres must be ready to offer and stimulate work in local areas. Small business teaching cannot go along without the complementary consultancy. In the US and Canada they are as interwoven as they can be. One can only have effectiveness in the one field, if one has effectiveness in the other. The Department of Economic Affairs has already aided the establishment of a centre at Aston University, but clearly that alone cannot meet national needs. The polytechnics and specialist centres should be especially qualified to help in this development.

The US centres or bureaus or institutes are of great interest as a pointer to development here. They are generally self contained and usually self-budgeting often within the framework of the graduate schools of business. One of the outstanding cases is the Michigan Social Science Centre with a staff of about 200. It is working on consultancy, on research often of a contractual nature, and on teaching, and is self-supporting financially although it is part of the University of Michigan. The quality of the consultancy may be measured by the fact that it is advising the State Department on the structure of its administration amongst dozens of other projects. The centre has tremendous resources of material in the shape of social science surveys and its staff possesses a great deal of experience. One of the interesting aspects of the centres is that commonly the staffing is on a joint appointment basis. Frequently a professor spends half his time in the institute, and half his time in, for example, the school of business, the school of law, the school of economics, or the marketing department, and he will usually have research workers with him. In this way there is a steady two way flow. The concepts of, for example, industrial relations are transmitted into the school of law, and the ideas of the school of law move into the institute of industrial relations. The US colleges consider that this is one of their most successful ways of probing new fields and stimulating effort in new directions. They do not find that it leads to divided loyalties.

The universities are most generous in providing opportunities for staff co-operation and staff exchange. They are most anxious to promote exchanges of staff with this country and financial assistance can frequently be made available. It is interesting that the normal US terms of appointment are such that no-one is confirmed in their teaching post until after five years. Thus there is a real incentive to ensure that the job is being done well and that job and man are matched—a particularly important point where a teacher is moving from industry.

It is fair to say that the US colleges are recognised as centres of development in the management field. They are regarded as focal points of management know-how. This is largely because of the close interlinking on consultancy and directorships between the staff in the universities and colleges and the industrial side. There is constant interchange. Publications, the *Harvard Business Review* or *Columbia Review*, carry great weight with industry, and the public relations, cemented through the access to industry of college staff for the development of case studies and simulation material, are of great importance. We have seen the development of industrial staff colleges here, but it is rarely the case that these are located close to major education institutions. There

is often too little cross-fertilization in research, consultancy or future management development programmes. Many American industrial concerns contribute, generally on a covenanted basis, up to a hundred thousand dollars a year to their local school of business—giving invaluable flexibility. The value of an MBA can be measured in cash. The encouragement given by industry to the MBA is not only financial however. There are US firms going to the campus to recruit staff and saying, 'We haven't got a job in your particular field at the moment, but join us, and at the end of the first nine months, tell us why we ought to be doing what you know about'. This challenge and opportunity for responsibility is essential to attract and hold the able man. Young Englishmen with an American MBA degree are often much less concerned about the money than the opportunity. Equally if we train management teachers in America, or recruit them there, and give them only restricted opportunities in education, is it likely that they will stay?

Full-cost Courses

There is in Britain a marked increase in the demand for management education and difficulties in meeting it under present economic conditions. It would appear that we must look carefully at the extension of full-cost, or much nearer full-cost, courses in our college system. Sometimes higher regard is paid to a course which has a realistic cost. If we consider that it is only going to be possible to increase staffing and other resources substantially in management departments by increasing costs of courses then almost inevitably the logical conclusion must be a departmental budget. This is normal US procedure and we are not without precedents here. The Work Study School at Cranfield has operated on a full-cost basis for many years, and there have been no insuperable problems about co-ordinating the work of the school of Management with that of the Work Study School. There seems no reason why part of the work, particularly special short courses, should be self-budgeted and other parts not. This may be one of the solutions to our short term problem. It calls for changes in some traditional approaches and for the delegation of greater authority to the senior managers in the educational institutions. Some local authorities have already reacted to meet the changed needs, with real success.

Developments in UK

The diploma in management studies is a flexible scheme and it is making substantial progress. Special functional aspects are developing in a number of courses. Discussion is going ahead with a number of the industrial training boards to develop simulation and case study material from particular industries to meet their special needs, within the framework of the scheme. Integrated schemes, linked to management development programmes have been built up by full consultation between industry and college. There is certainly room for expansion into the service industries and into public administration. It may be desirable to develop further functional courses of increased depth.

There is a strong case for nationally recognised qualifications in the field of management studies and the industrial training boards can play a critical part in developing this concept. As with e.g. BScs which may be in various subjects, so the diploma schemes may vary in content.

Equally, supervisory studies, leading to a nationally recognised minimum qualification, can develop in content so that precise and particular needs are met. This would surely be better than a multiplicity of separate courses and awards. The Council for National Academic Awards has now established a board of studies in management studies —a most important step. The suggestion that the management course should be of two years duration has much to commend it, because in effect it is a first degree in management for many men, a masters' course which often follows on previous studies in other fields. It is to be hoped that the CNAA degree develops to afford an opportunity for the man in his 30s or 40s holding a diploma in management studies to get some exemptions; thus a link between the DMS and some of the CNAA courses may be created.

And so, to hazard a guess at the future, it may be that an increasingly flexible diploma will meet the needs of younger and existing managers in their 30s and 40s with a steady growth over the next ten years as the impact of the industrial training boards is increasingly felt, and that at the same time the extension of the CNAA and MBA courses may gradually meet more of the near-immediate postgraduate need. Courses for the professional management institutions are likely to be in steadily increasing demand. Executive development programmes of shorter duration for older men will also be required. It is after all mainly from the top third of graduates that the US business schools recruit and something has got to be done for the other two thirds and for the many others who are part of the management team. Supervisory studies, for instance, are critical and demand really mature teachers. A group of senior foremen soon 'see through' any sort of teaching that is indifferent in quality and not based on experience. The polytechnics surely have a major role to play as focal points in the development of this work, not necessarily to handle it all, the numbers are too big for that, but to provide an advisory, consultative service and often key staff to assist developments in the area as a whole. It may be that developments in trade union education can run closely parallel with supervisory studies. It seems certain that *ad hoc* courses, so important in themselves, must be based on a fair volume of longer term work, because no staff can maintain real quality in short courses alone. Is it unreasonable to suppose that no polytechnic within the next ten years will have a staff of less than 30 or 40 or more in the management studies field?

It is vital that industry and the industrial training boards should make their needs known and provide feed-backs into the educational system, discussing with it what is required. It must be a two way process. If we are to regard the major educational institutes, in the long term, as focal points for management education, and surely this must be the national strategy, this can only be done if they have the complete confidence of industry in their areas. That can only be achieved if there is this two way traffic of course development, consultancy, staff exchange and research going on the whole time. Much has been achieved in the past five years and much remains to be done. Policy decisions, particularly perhaps in relation to the supply of teaching staff, are of crucial importance, but continued and expanding co-operation between industry, the training boards, education and the professional institutions, is the fundamental foundation for progress.

African governments, says the author, have now out grown the euphoria of independence and are facing up to the problem of priorities, in education as much as in everything else.

Africa's Educational Priorities

A. R. THOMAS

In July 1968, the education ministers and other representatives of 35 African states attended a conference in Nairobi, jointly organised by UNESCO and the Organisation for African Unity (OAU). Twelve non-African governments sent observers, among them the US, France, Russia and Britain.

The terms of reference of the conference were: to consider problems relating to education and scientific and technical training in Africa, to review UNESCO's activities in its African member states, and to study its future role in the continent.

This was the latest in a series of African conferences organised by UNESCO. It was however the first conference to bring together the problems of education, science and development; the most significant of its forerunners being the Addis Ababa Conference of African Ministers of Education, held in 1961. At Addis Ababa the atmosphere had been one of optimism, engendered by the attainment or expectation of independence and the far reaching aims of UNESCO and of African leaders to achieve a "breakthrough" in the educational development of Africa. It sought to achieve this by setting a series of quantitative targets for the expansion of education on a continental basis. These included the attainment of universal primary school enrolment by 1980; and, over the five year period to 1966, specific rates of increase in enrolment at primary, secondary and tertiary levels, quantitatively expressed shifts in emphasis towards vocational, technichal and teacher-training enrolments, and at university level towards scientific and technological studies.

The Nairobi conference, in taking stock of the progress made since Addis Ababa, noted with satisfaction that most African governments had accepted the principle of educational planning and that large (and growing) parts of national incomes and budgets were being devoted to educational expenditure. There had been a general and substantial increase in enrolments at all levels and a large increase in the number of university institutions. The numbers and quality of training of African teachers had markedly improved.

On the other hand it noted that there had, generally speaking, been a failure to achieve the targets set at Addis Ababa. Thus there had been substantial shortfalls in the planned rates of increase at primary and secondary levels. A very high wastage rate caused by drop-outs and repetitions in primary schools, and a relative shift from technical and vocational towards general enrolment at the secondary level had occurred. Only at the third level had the target been surpassed, but

even there the proportion of scientific and technological students had declined instead of increasing. In these circumstances the prevailing mood was one of realism and—in some degree—disenchantment with the quantitative continental approach of Addis. There was, for instance, ample evidence to show that generally speaking African governments had reached a limit to what they could do in the way of educational expansion from their own resources. Budget percentages devoted to education varied from 15 per cent to over 30 per cent; national income percentages from 3 per cent to 7 per cent. Only through general economic expansion—which, with the terms of trade against them, was likely to be slow—could the rate of educational expansion be increased. But even that was likely to do no more than keep up with population growth—which had been at a higher rate than was foreseen at the time of the Addis Ababa conference. In these circumstances, it was inevitable that thoughts should turn in the direction of increased external aid particularly against the background of the Williamsburg Conference *World Crisis in Education*, the proclamation by the U.N. General Assembly of 1970 as International Educational Year, and the preparation for the second Development Decade. And indeed one of the resolutions included a 'solemn appeal . . . for a substantial increase by the developed countries in the amount of their aid to the African countries, particularly for educational development.' But the delegates were sober in their assessment of the prospects of increased external aid and it was implicit throughout much of the discussion that African governments would have to accept restraints on programmes which might otherwise be desirable.

Need to Reorientate

This was the easier to accept because of the problems met with so far by African governments in achieving the relatively modest expansion which had already occurred. A long and earnest exchange of views took place on the qualitative aspects of the problem, and the need to rethink the objectives, organisation and content of educational systems. Great concern was expressed over the need to improve the quality of teachers and to extend and to intensify the teaching of science, maths and vocational skills. Governments recognised the problem of graduate unemployment and were worried about the wastage through drop-out in primary schools. Above all there was concern over the need to reorientate the school curriculum so as to make it better adapted to the needs of the country and the enviroment of the students, and particularly in relation to the primary school leavers who, because of their age and lack of skills, are so often unemployable. There is some good sound sense in the conference report about the need to view education not only as a means of providing instruction, but also for the future responsibilities of each individual as a producer and a citizen. There was realisation too of the need to 'ruralise the content of primary school education' and to 'inculcate a respect and taste for manual work', and an understanding of the desirability of providing primary school leavers with post-primary education that has an agricultural or vocational basis, as well as adult education schemes for parents.

An area of discussion which overlapped the quantitative and qualitative aspects of the problem was that concerned with the improved utilisation of available resources and the reduction of unit costs. Dis-

cussion ranged widely over the shifts and makeshifts which might make resources stretch further and might in some cases improve the education given. The possibilities of educational technology were considered, with appreciation both of its potentialities and of the care needed in applying it in African conditions. It was agreed to encourage, where applicable, the local production of science and teaching equipment and to make joint use, so far as possible, of institutions in different countries. The need for schools to share laboratories and for expedients such as multiple class teaching, one teacher schools, and double shifts to solve problems of trained-manpower shortage were put forward. The economical construction of buildings by self-help communities was strongly encouraged.

There was acceptance of the need to plan educational development as an integral part of economic and social planning in relation to manpower needs and employment prospects. Specifically it was recommended that governments should establish manpower boards to fix enrolment targets for higher technical institutions and universities. The higher priority to be given to science education and technical training (including agriculture) has already been noted. There was a welcome recognition of the need to produce more laboratory technicians in order to release science teachers for their proper tasks.

The Conference devoted part of its time to considering the establishment of training and research institutions or 'centres of excellence' in Africa. A decision in principle had already been taken by Heads of State at an OAU meeting in Kinshasa some months previously to establish eight such centres. The philosophy behind this decision was that Africa should develop facilities for post-graduate research training which would be comparable with the highest in other parts of the world (Massachusetts Institute of Technology, the Manchester College of Science and Technology, and the Leningrad Institute of Technology, being cited as examples). The Heads of State had proposed the setting up of centres in geology, geophysics and mineralogy; climatology and meteorology; hydrology; human medicine and pharmacology; food science and technology; veterinary medicine; applied science and engineering; and marine science and technology.

The Nairobi Conference was informed that its discussion should not question the decision already taken in principle and should not embrace its financial implications or the question of where the centres of excellence were to be established. With these restricted terms of reference an interesting discussion developed. It was not clear whether the proposed new centres were to be created from nothing or to be developed from existing institutions. If the former, it was pointed out, there would be heavy additional pressure on talent already too scarce to supply existing institutions and no supporting disciplines to provide the necessary environment. If the latter, it was already apparent that a process of claims and counter claims would develop. The African head of the Nairobi Veterinary Department, while making it clear that he was not advancing a claim, pointed out that his department already served the needs of the whole of East Africa and took students from other parts of Africa as well. Others testified to the difficulty of serving the needs of Africa in single institutions, in view of the differences in conditions of agriculture, mineralogy etc. in different parts of the continent. It was also emphasised that other disciplines, particularly

the social sciences, had a good claim to be included. In the event, it was decided to congratulate the OAU on having proposed the establishment of centres of excellence; to urge that, in implementing the proposal, it should consult fully with member states and international organisations and take account of existing facilities and 'ward off the economic, social and political problems which may arise from the presence of such centres'. It will be interesting to see how far this proposal proceeds.

Language Problems

The problem of language occasioned some lively discussion. On the one side it was urged that the use of English or French as a medium of instruction in schools, particularly at primary level, was an uprooting influence as well as making learning more difficult, and that the mother-tongue should be used instead. On the other side it was asked 'what is the mother-tongue?' and the necessity of learning in an international language at the higher levels (particularly in science), and its advantages at lower levels, were stressed. The subject is an emotive one and the compromise reached was that it is desirable that African languages and, in so far as possible, the mother-tongue, be used in primary education wherever feasible, but that there are cases where the use of another language is justified, and the use of African languages as vehicular languages can be reconciled with the need for teaching English and French as the two main languages of wide communication.

English and French were, of course, the only languages used in the Conference. This caused no difficulty in discussions since there was simultaneous translation. There was an inevitable tendency, however, for the language barrier to separate the French-speaking and English-speaking delegations outside the conference chamber. The difference appeared most markedly however in the style and content of the draft reports and resolutions. Thus the report of one of the commissions was drafted by a French speaker and, I was told, translated into English by a French speaker, with the result that conceptually, as well as verbally, it was sometimes difficult for the English-speaking participants to go along with or, in some parts, even to understand what was meant. For example, the recommendation 'to purge the educational system of its microencyclopaedic content'. So much the better, then, that one of the resolutions invited African Governments 'to encourage the teaching of both English and French in all secondary schools and universities.'

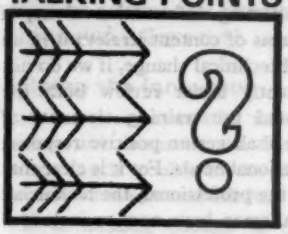
When it came, at the end of the conference to consider whether the Addis Ababa targets should be abandoned, continued or revised, there was a natural reluctance, supported by the Director General of UNESCO, to say that the quantitative, continental approach should be abandoned. One resolution invited African governments 'to ensure that the primary education systems of the African countries, in ways varying from country to country, achieve as soon as possible the 100 per cent school enrolment, at primary level, which was scheduled for 1980 in the Addis Ababa plan, and which is in conformity with right to education, the desire for education shown by the peoples of Africa, and the democratisation willed by the Governments . . .' It was also agreed during the second phase of the plan, to maintain the Addis Ababa

targets as general objectives and a general framework. However, it was recognised that the Addis Ababa targets were in need of revision and UNESCO was asked to undertake, in co-operation with Economic Commission for Africa and OAU, the studies necessary for a possible general revision of the targets. Moreover, reading between the lines of the discussion and the conference report, it is clear that a new and realistic spirit is abroad; that, whatever support is given to the ideal of universal primary education, and 'education as a right" for all, African governments are generally speaking conscious from their experiences of the past seven years, that certain realities must be faced.

The first of these is that educational development must be planned on a national and not a continental basis. Secondly, national educational planning must have regard to the resources available and accept restraints upon progress towards what may be desirable or politically attractive. Thirdly, educational development must be integrated with general development and be largely conditioned by manpower needs and employment possibilities. Fourthly, there needs to be a greater emphasis on quality, including teacher training, and most importantly an overhaul of the school curriculum (particularly at primary level) in order to equip school-leavers with attitudes and skills which will best fit them for their future employment and environment. Indeed, if there was one topic which dominated the discussions above all others, it was concern over the social problems arising from large scale unemployment among primary leavers and the drift to the towns. Fifthly, every attention must be paid to making available resources go as far as possible by economy in buildings and sharing devices. Finally, more positive efforts should be made to encourage science, maths, and vocational and technical training.

All in all, it was an encouraging conference: encouraging because it showed that African governments have outgrown the somewhat easy optimism of independence, are inclined to question earlier assumptions based simply on definitions of education as a human right and an investment, are facing up to the problems of priorities, and are placing emphasis on those aspects of educational development which are manifestly related to economic and social development. In short, Africa is thinking maturely about its vast educational problems.

TALKING POINTS



Under this heading will be gathered together from time to time short items on points which are being talked about in the education service . . . in anticipation of a trend, in the absence of a trend, or sometimes even in defiance of a trend.

Ages of Transfer

The transfer age of eleven in our school system was originally settled largely on the grounds of administrative convenience (post Hadow report) rather than educational advantage.

Many local education authorities are now adopting the Plowden recommendations for transfer at 8 and 12, and others are proposing transfer at 9 and 13. This means that during the nineteen seventies we are going to see five to seven, five to eight and five to nine schools, leading on to seven to eleven schools, eight to twelve schools and eight to thirteen schools; nine to thirteen schools and ten to thirteen schools, as well as some that cover eleven to thirteen and others eleven to fourteen.

In fact it appears that every age in the range except one is being adopted by an LEA somewhere—no one appears to be proposing to transfer children at six.

If we had no other problems, we would at least have the one of making the developing pattern understandable by, and equitable to, both children and their parents.

The population is now more mobile, and the combination of this mobility with widespread variations in transfer age may exercise an adverse effect on the education of many children.

Moreover, the proliferation of age ranges for middle schools means that the education service must take a close look at the needs of children in the 8 to 14 age range.

One might start by asking whether 8-12 or 9-13 are natural stages in child development better taken at a single school, any more than 7 to 11 was? There has been a lot of talk about this matter recently, but none of it is based on practical experience—we cannot learn very much from the private sector, because the home background, class sizes and other factors are so different from the State system.

The aims of education in the middle years, the curriculum, staffing, and the grouping of the children, will have to be re-examined. Not enough is known about the educational potential of this age group. But it must be apparent to all of us that there are very great variations in the emotional, intellectual and physical development between different children, and especially between boys and girls, during these years.

A teacher dealing with this age group needs to keep an absolutely open mind about each child *even after* he (or she) thinks potential has been assessed. It is all too easy to think we are predicting, when in fact by our predictions we are really *determining* performance.

Differences in grouping mean that some children of this age will be in comprehensive schools of more than 1,500 children. Others will be in two or three class county schools where too little, not too much, contact with other age groups exists. In the former case we will need to think out ways of breaking the school organisation down to make it into a homely and manageable unit for the young; in the latter case we will need to build it up somewhat, perhaps by the use of mini-buses to take children to and from one centre and another.

In a school you have to consider the intellectual, physical emotional as well as social development of children. Broadly speaking all children go through the same stages of development, but at different ages and rates. However, the effect of different school environments on them can be very marked. In an 11-16 or an 11-18 school a thirteen-year-old is a child among semi-adults, or at any rate in an environment where semi-adults are making the

running and receiving the respect. There will be a strong specialist element in his teaching. Right from the beginning he will very likely be taught by people who are themselves specialists, and who have specialist facilities and equipment available to them in the form of laboratories, workrooms and libraries.

But in a 9-13 school the thirteen-year-old is in the top age group. Instead of being a dwarf among giants, he is himself the giant (perhaps a mini-giant). What effect will this have on him socially, emotionally, and intellectually, bearing in mind that the facilities that will be available to him, in the form of specialist teaching and equipment will not be lavish? No one it seems can truthfully answer that question.

Training or education?

It has been claimed that dialogue is the essence of the educational process. Where this does not exist valuable instruction or training may take place, but not education. Training, under a good craftsman for example, or instruction in the form of commentary on the student's work from an artist or musician, may be a more valuable experience, socially and morally, than a poorly concieved programme of education. The Industrial Training Act involves a distinction between education and training. Such a distinction has always been implicit for the teaching in most technical college courses has assumed the co-existence of *some* training within industry. But the lack of national training schemes has resulted in some college syllabuses containing large elements of training. Such syllabuses will be, or are being, revised, so that the training elements will be left to the trainers, and the education to the teachers. Such a clear distinction is very difficult to achieve.

Technical education must often assume a highly specialised character. Almost everywhere it has to be related to the student's vocational ambitions and to the employer's need for skills of hand and brain. Can this be reconciled with the retention of educational ideals (and practices) which derive from a pre-industrial inheritance?

If the syllabus is too confused or too over-loaded, if teachers concentrate not on cultivating habits of independent thought but on imparting information alone, if we retain areas of content irrelevant in an age of rapid technical change, if we do not keep constantly under review both the education and the training elements of courses, we shall get no positive response to urgent national needs. For it is clear that the skill of the professional, the technician and the craftsman have now to include a flexibility of outlook, a capacity to re-learn and a power to employ old knowledge in new situations. Furthermore, relevant knowledge cannot be confined to one discipline or one technical field. Conventional subjects have burst their boundaries, traditional techniques have proved operationally inadequate. Communication skills including, of course, mathematics, statistical analysis, an understanding of social structure, a sensitivity to group and individual psychology, these are factors of the utmost importance when industrial and commercial operations demand, as they do to-day, the delicate balance of an extended team performance.

For a long time further education was poverty-stricken and fulfilled a menial role. In the past fifteen years its expansion has been richly endowed. In this same period the main courses have been redesigned in the light of modern needs, new courses have been created, complementary and contrasting studies have been introduced. A period of ferment and controversy has followed a long stagnation and neglect. Of course much remains to be done.

More than twenty training boards have been established under the Industrial Training Act and over £130 million contributed in levies on employers. A revolution may produce new freedoms or new forms of slavery. It is already clear that further education will be radically affected by the Act. Will this result in constricting course curricula, or can it be anticipated that the implementation of the Industrial Training Act will free the colleges from pressures that have tended to inhibit their educational function? Will organised training tend to produce narrow vocational education, or will the broader objectives and the concepts of general

education implied in secondary school and university reforms now be within reach of the technical colleges too?

Helping the Innovator

One has great sympathy for the young teacher who discovers that innovation is all too much trouble in the face of conservative attitudes and minimal assistance.

It is difficult enough to prepare an ordinary lesson using well-established equipment like text-books and blackboards. With new techniques, everything must be done in greater detail, beforehand. But how? The time-table is full, fatigue sets in at the end of a harassing day, and where is the material to come from? How easy is it, for example, to make transparencies for an over-head projector? If there is a solution, the teacher must usually find it in or around himself.

At national level the work of the Educational Foundation for Visual Aids is well-known, what about local self-help?

Lt. Cdr. R. J. Bruce of the liberal studies department at the Royal Naval Engineering College, Manadon, has written to *Trends* about the introduction at the Oxford Institute of Education, of a department to answer, in detail, teaching queries, and to help solve teaching problems. As he points out, the problem of the keen young teacher is often a physical one: how to find time and energy and equipment.

The development of in-service training and the growing use of Nuffield schemes and modern mathematics suggest changes, even if they are largely only curricula changes. A promising solution may lie in the development, by LEAs, of local 'power-houses' of ideas and equipment. Such a power-house says Mr. Bruce, exists in Oxford at the Institute of Education, where the LEA has appointed a group of people under Michael Molesworth to create a department devoted to the task of answering in detail teachers queries, and helping them to solve teaching problems. For the price of a telephone call, expert guidance and assistance can be summoned.

It would be interesting to know how widespread this problem of resources is?

Question Master

TREND-SETTER

Training Teacher-Librarians

The University College course for teacher-librarians seeks to offer each student such options as will most closely meet his individual needs, both from the point of view of his own teaching interest and that of the type of institution in which he works. The essential techniques of librarianship are considered in relation to specific situations.

Each student begins the course by spending a fortnight working in a public library, where he can discover not only the basic terminology of librarianship, but also what is offered to schools and colleges in an area by the public library service; in counties especially, this is often considerable. Thus barriers between teachers and librarians erected through ignorance of the services offered by public libraries can begin to be broken down. Students also spend two futher weeks during the course doing practical work in libraries. One week is spent in a school library and the other in a college of education library.

The syllabus offered gives the student the opportunity to obtain the necessary techniques for the efficient administration of libraries and to explore fully the educational possibilities of libraries. They may then return to their posts a with clearer idea of how they might exploit their own library, in order that it may become in reality the 'power-house' of the school or college. Apart from the practical work, students have the opportunity of visiting a number of school, college and specialist educational libraries. Last year the students found the visit to the audio-visual aids centre of the London Institute of Education a particularly valuable experience, perhaps because it indicated that the library may best serve teachers and pupils

when all sources of information and not merely books are centralised in it.

The course may be said to divide into eight parts. First comes the history of libraries with special reference to the role of libraries in the history of English education. Through seminars, students investigate such topics as the relationship between the growth of literacy and libraries.

The work in subject bibliography examines libraries, reference books, periodicals and bibliographic tools, from the point of view of the study of education. An essay programme undertaken during the year seeks to ensure that students become aware of and evaluate the research materials available in the field of education.

The emphasis in the cataloguing and classification course is laid on the practice of these skills. Students consider the principles and problems of cataloguing and classification as they are relevant to school and college of education libraries, but enough theory is taught to enable students to judge the relative merits of possible methods and choose the most suitable one for their particular institutions.

In library management studies, teacher-librarians follow the same course as general librarianship students in statistics, survey methods, and management history and methods. Their work is supplemented by seminars on the practical problems that arise in college of education and school libraries

Each student also prepares a two-part individual study of an approved topic. In the first part, a study at the student's own level, perhaps an exploration in depth of some by-way of his own degree subject, is undertaken. In the second part the planning and preparation of material for a series of lessons for a specified group of children or students is covered. This includes a detailed annotated bibliography. As will be evident the aim is to enrich the student's awareness of sources both printed and audio-visual from the point of view of his own teaching and from the point of view of provision of adequate stock in school and college libraries.

As a background to the educational exploitation of libraries, a study of reading and the use of books in education is undertaken. There are two lines of approach. The development of children's interests in reading are studied in relation to the principles of child development. Here such topics as linguistic and reading ability and remedial reading are considered. Secondly, a critical study of children's literature and outstanding collections is made. Thus theories about children's reading and a knowledge of the available literature can be brought together.

The final part of the syllabus concerns the use of libraries as aids to teaching. The students consider the role of the library in educational institutions and its relation to subject teaching in schools and colleges, as well as the library needs of students and research workers and the flow of information in the education field.

Most teaching takes the form of seminars which enable students to discuss and benefit from one another's experience. This method has proved fruitful, especially in the context of the library needs for the reaching of different curriculum subjects. At present students' work is assessed half by course work and half by examination. Thus, essays and practical work during the year combine for the assessment of work in the history of libraries, subject bibliography, cataloguing and classification and their individual studies, while students sit examinations in library management, reading and the use of books in education and the use of libraries as aids to teaching.

The above item was supplied by Ann Christophers tutor to the course described.

New Language Laboratory

The Tavistock Comprehensive School, Devon, has designed and developed its own language laboratory called the Tavistock Model Mk. II.

Mr. Forrer, head of the modern languages department at the school, emphasised that the teaching of modern languages was completely reprogrammed first, and that the design of the installation was subordinate to the needs of the programme and not *vice versa*.

Most commercial language laboratories of thirty places cost about £5,000. This is too small and too expensive for the average comprehensive school.

The Tavistock model, Mr. Forrer tells

us, was designed for a hundred places (plus five spare places) at an overall cost of £3,600, and provides the same facilities as a standard language laboratory of the same size costing from £15,000 to £17,000. It is also simpler, more robust and does not involve the same maintenance problems as the standard installation. It can be moved in two to three hours should changes in school organisation demand, and, most important of all, it can be built up in four phases. This phased development capability means that financial problems are reduced to practical proportions. Overall planning has also allowed for future technical developments, particularly in the field of miniaturisation and UHF radio, to be integrated in phase four. In phase one *et seq.*, the highest possible quality reproduction has been secured.

Description of the Tavistock Model Mk. II

The console unit in the parent installation room comprises two stereo Hi-Fi tape recorders, a VHF tuner, control switches for film strip projector, surge resistor, tape splicer, dim lighting, microphones etc.

This unit enables BBC schools broadcasts to be recorded on tape. These tapes can be copied, exploded and edited in situ. All students can be addressed through the microphone to headset link. Live recordings can be made. Two independent signals are fed to each headset. The role of the second tape recorder is to serve as a standby or to put out second and third programmes to contiguous classrooms.

Thirty-five stereo headsets are connected to feeder points on the overhead wiring installation connected to the console unit. When not in use the headsets are simply looped on to the overhead installation.

A fixed film strip projector fitted with a surge resistor is connected to the console unit from which it can be operated by remote control. At the console unit there is also an overhead projector enabling textual material to be projected alongside film strip projector screen.

One hundred and five places are provided for by miniaturised cassette-loaded tape-recorders completely independent of the console unit and headset installation.

Learning Begins at Home—A Study of a Junior School and its Parents.

Michael Young and Patrick McGeeney.

Routledge and Kegan Paul. £1 1s 0d.

Whatever hopes and expectations have been raised or dashed by measures taken to implement the recommendations of the Plowden report, there is no doubt that the section on home, school and neighbourhood has proved to be one of the most effective in bringing to the fore the important issues of parent-school relationships. In *Learning Begins at Home*, Michael Young and Patrick McGeeney describe an investigation which began as a study to test two early proposals of the Plowden committee; that a more determined effort should be made to improve education in underprivileged districts and that parents should be linked much more closely to schools than they traditionally have been. The choice of school, 'John Lilburne', built in 1896, in an ILEA district containing a high proportion of immigrants, was deliberate.

The publication of this book is timely and it makes fascinating reading. There is ample evidence, from recent conferences and discussions with heads and staffs of primary schools, that there is a quickening of interest in this hitherto largely neglected area of the primary school in its community. All teachers acknowledge the influence of the home on a child's attitude and performance at school but, as the authors point out while surveys have revealed associations between school performance and home background teachers cannot act on these; it is causes that need to be understood. They therefore felt it necessary to undertake what they called 'action research'. The results were inconclusive, as the authors make clear, but this in no way detracts from the value of the study nor the impact of the book. Any head or class teacher will

recognise familiar situations in their contacts with parents described here, no matter from what social background their pupils are drawn. The fact that the study was undertaken in an under-privileged area merely concentrates the problems arising from the relationships, or lack of them, that are formed between staff and parents of any primary school.

The inquiry began with the parents, who were asked what their previous contacts had been with the school from the day their children started. Some of the replies were illuminating; 'Not a lot happened really. They start so many children at the same time; so they just make a note of their names and addresses.' 'A lot of mothers there. Nothing about the school at all. Just taking down particulars.' 'So many start at the same time. You just take them in, hand them over to the head of the school and that's it.' And on the move to the junior school, 'We took the children upstairs and the Head told us to go home.' The parents attitudes to the school and to open day revealed more interest and goodwill than is generally supposed, mixed with a measure of ignorance and mis-understanding of what the school was trying to do for their children. Many parents were critical over discipline, and 'play'. 'I, myself don't think they're strict enough.' About teaching methods they were confused. They were ignorant, they knew they were ignorant, and they were therefore a little fearful. What is made manifestly clear in this study is that the attitude of many of the parents was formed and hardened through lack of communication with the school. 'They could see the massive walls; they did not understand what went on behind them. They did not understand because they had never been told, except by their children, who were not always the best of informants.'

The heads' and teachers' problems are dealt with sympathetically and the difficulties of establishing contact with the parents is acknowledged and understood by the authors. The doubts and misgivings of some of the staff of the school were fortunately outweighed by the willingness of the head and other members to take part in the experiment and enough parents were interested to encourage the authors to proceed. They proposed open meetings, private talks, meetings to discuss teaching methods and home visits.

Just over a third of the pupils attending the school were immigrants and additional meetings were held for their parents. In the chapter on immigrants the authors make a case for the separate meetings and describe what action they took. Problems arose in parent/school contact with this group because of the additional barrier of language. 'One of the greatest handicaps for many immigrant children seemed to be that they never heard English spoken at home and their mothers could not help or encourage them with school work at all.' The factual account of interviews with parents at school and home is vividly written; the parents own words spell out the lesson to be learned here.

Changes having been accomplished, opinions of teachers and parents sought' the authors attempted to assess the effect on the children. Tests of performance given before and after the investigation are compared and explained. In the authors, own words the evidence was hopeful if not conclusive. It showed 'that closer contact *could* produce beneficial effects for some children'. Their assessment may be ocnsidered unduly cautious and inconclusive. But, as they wisely point out, further trials need to be made, and a more intensive inquiry into the parent/child/teacher interaction is needed.

In the final chapter, however, caution is left behind and the authors speculate freely on the whole subject of parent/school relations. The traditional attitude of the teacher to parents in this country is examined and compared with France and Russia. The effect of changes in family life and the new practices that are emerging in primary education are shown to interact and suggest that a different teacher/parent, teacher/pupil relationship is needed if full educational development and level of performance of the children are to be achieved. This is probably the most challenging chapter in this book. It deserves close study. It is difficult to deny the authors' assertion that 'lack of full co-operation with parents is one of the greatest failings of our educational system'. G.W.E.

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D.E.S. FILMS

DEPARTMENT OF EDUCATION AND SCIENCE FILM

16mm prints of these films are available from Central Film Library, Government Buildings, Bromyard Avenue, London W3, free of charge.

Information leaflets on these films can be obtained from the Films Officer (Room 102), DES, Curzon Street, London W1

The Happy Ending

A colour film for schools about full-time higher education in the technical colleges

Experiment in Teaching

A film about teaching applied science and technology in schools